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UNIVERSE VIEW SUBDIVISION  
TRAFFIC IMPACT ANALYSIS  
ALBUQUERQUE, NEW MEXICO



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## EXECUTIVE SUMMARY

### *Study Purpose*

This report analyzes the traffic impacts of the proposed Universe View subdivision, which will be located in the northwest area of Albuquerque, New Mexico. This analysis will identify the traffic impacts of the Universe View development and develop mitigations for intersections that are adversely impacted.

### *Site Location and Study Area*

The proposed Universe View subdivision will include the developments listed below, which will be built in separate phases. A site plan of the proposed site is provided in **Appendix A1**.

- Phase I – 162 townhome units (Opening Year 2023)
- Phase II – 196 apartment units. An apartment leasing office and gym will also be built in this phase. The gym will only be available to apartment tenants. (Opening Year 2025)
- Phase III – 14,400 GSF pharmacy without drive-through and 14,726 GSF commercial building (Opening Year 2027)

The proposed subdivision will be located about 5 miles north of Interstate Highway 40 (IH 40) and about 7 miles west of Interstate Highway 25 (IH 25). The subdivision can be accessed through Universe Blvd, which connects to Paseo Del Norte Blvd and Rainbow Blvd. Currently the site of the proposed subdivision is vacant. Once the subdivision is built, it will only have access to Universe Blvd through driveways and the proposed Rosa Parks Rd and Perezoso Dr cross streets. The subdivision will have two driveways intersecting Universe Blvd, three driveways intersecting Rosa Parks Rd, and one driveway intersecting Perezoso Dr.

Major intersections in the vicinity of the project area were investigated for this study. **Table A** includes the intersections investigated, the intersection numbering used in this report, and the intersection control type. The study intersections are also identified with corresponding intersection numbers in **Figure 1 (Appendix B)**.

**Table A – Intersections Identified for Impact Analysis Numbering and Control Type**

| Intersection Numbering | Location                             | Control Type |
|------------------------|--------------------------------------|--------------|
| 1                      | Universe Blvd & Paseo Del Norte Blvd | Signalized   |
| 2                      | Universe Blvd & School Access Road   | Unsignalized |
| 3                      | Universe Blvd & Rosa Parks Rd        | Unsignalized |
| 4                      | Universe Blvd & Driveway 1           | Unsignalized |
| 5                      | Universe Blvd & Driveway 2           | Unsignalized |
| 6                      | Universe Blvd & Perezoso Dr          | Unsignalized |
| 7                      | Universe Blvd & Rainbow Blvd         | Signalized   |
| 8                      | Rosa Parks Rd & Driveway 3           | Unsignalized |
| 9                      | Rosa Parks Rd & Driveway 4           | Unsignalized |
| 10                     | Rosa Parks Rd & Driveway 5           | Unsignalized |
| 11                     | Perezoso Dr & Driveway 6             | Unsignalized |

For this study, Synchro 11 software was used to analyze the traffic conditions for the following scenarios:

- 2022 Existing Conditions
- Phase I No Build Conditions (Year 2023 without Universe View subdivision)
- Phase I Build Conditions (Year 2023 with Universe View subdivision)
- Phase II No Build Conditions (Year 2025 without Universe View subdivision)
- Phase II Build Conditions (Year 2025 with Universe View subdivision)
- Phase III No Build Conditions (Year 2027 without Universe View subdivision)
- Phase III Build Conditions (Year 2027 with Universe View subdivision)
- Horizon Year No Build (Year 2033 without Universe View subdivision)
- Horizon Year Build (Year 2033 with Universe View subdivision)

The sight distance was also evaluated for the proposed access points along Universe Blvd (Rosa Parks Rd, Driveway 1, Driveway 2, and Perezoso Dr). AASHTO's *A Policy on Geometric Design of Highways and Streets, 2018 7<sup>th</sup> Edition* methodology was followed in the sight distance evaluation.

### *Principal Findings*

Based on the results of the traffic analysis, it was concluded that the development will not adversely impact the intersections in the Phase I (2023), Phase II (2025), and Phase III (2027) scenarios. All intersections perform at a LOS D or better in 2027 for all scenarios, except for:

- Intersection 1 (Universe Blvd & Paseo del Norte Blvd) – The intersection is expected to deteriorate to a LOS E and F during the 2025 AM and PM peak hour, respectively. However, this deterioration in LOS is expected to occur even without the proposed development, which only increases the delay by less than one second during both peak hours. It was also noted that the EB and SB left-turns and NB right-turn auxiliary lane storage lengths are exceeded in the No Build conditions.



The City may consider increasing the storage length for these movements to accommodate the turning traffic. Intersection 1 may be improved in a future phase of the City's Paseo del Norte project; however, the intersection improvements and the timeline for their implementation have not been defined by the City at the moment.

By the Horizon 2033 year, all intersections are still expected to perform at a LOS D or better except for:

- Intersection 1 (Universe Blvd & Paseo del Norte Blvd) – The intersection is expected to deteriorate to a LOS F by 2033 during both peak hours. However, this deterioration in LOS is expected to occur even without the proposed development, which only increases the delay by less than one second during both peak hours.
- Intersection 2 (Universe Blvd and School Access Road) – A LOS E is expected during the 2033 AM Build peak hour for 1-stage EB left turns. However, the proposed cross section of Universe Blvd will include a median, which will allow a 2-staged left turn movement for the EB approach. This will improve the LOS to a C or better during both peak hours.
- Intersection 7 (Universe Blvd & Rainbow Blvd intersection) – The intersection is expected to deteriorate to a LOS E in the 2033 AM No Build and Build peak hour. However, the proposed development will increase the delay by almost 20 seconds when compared to the 2033 No Build conditions. It can also be noted that the Existing 2022 queue (without the development) exceeds the SB left-turn storage. The City may consider modifying the lane configuration for the SB movement to accommodate the high SB left-turn volumes.

Based on the traffic analysis results, it can be concluded that the Universe View development will adversely impact Intersection 7.

It was also concluded that the LOS and delay at Intersection 3 (Universe Blvd & Rosa Parks Rd) is not adversely impacted; however, the 2033 traffic volumes for the SB left turn movement are expected to exceed the traffic volume threshold requiring a left turn lane.

From the sight distance analysis performed, it was concluded that there will be no sight distance issues at the proposed Rosa Parks Rd and Perezoso Dr intersections with Universe Blvd, and the two driveway access points along Universe Blvd.

### *Recommendations*

To mitigate the traffic impacts at Intersection 7 in year 2033, a WB right-turn auxiliary lane (240-ft storage length with a 150-ft to 300-ft reverse curve transition), an additional SB left-turn auxiliary lane (300-ft storage length with a 150-ft to 300-ft storage length), and signal optimization are recommended after Phase III is completed. The Universe View Subdivision is expected to increase 2033 traffic by 10 percent at Intersection 7; therefore, the developer is responsible for up to 10 percent of the construction cost of the proposed mitigations at this intersection. However, before any improvements are implemented, it is recommended that the intersection be evaluated again at the completion of Phase III to verify that the improvements are required. If Rosa Parks Rd is extended to Unser Blvd by the end of this phase, the

amount of traffic accessing the development through Universe Blvd will be reduced given that traffic would be able to access the development through Rosa Parks Rd and Unser Blvd. This would decrease the development's generated traffic at Intersection 7 and minimize the traffic impacts; therefore, only signal optimization (without the additional WB right turn and SB left turn auxiliary lanes) would be recommended.

A SB left-turn lane (240-ft storage length with 150-ft to 300-ft reverse curve transition length) for Intersection 3 (Universe Blvd and Rosa Rd) would also be recommended to comply with the City of Albuquerque Development Process Manual (DPM) requirements for left turn volumes exceeding turn lane volume thresholds.

## INTRODUCTION

This report analyzes the traffic impacts of the proposed Universe View subdivision. The subdivision will include 162 townhome units, 196 apartment units, a pharmacy with no drive-through (14,400 GSF), and a commercial building (14,726 GSF). This analysis will determine the traffic impacts of the development and develop mitigations for intersections that are adversely impacted.

## PROPOSED DEVELOPMENT

The proposed Universe View subdivision will be located in the northwest area of Albuquerque, New Mexico. It will include the developments listed below, which will be built in separate phases. A site plan of the proposed development is provided in **Appendix A1**.

- Phase I – 162 townhome units (Opening Year 2023)
- Phase II – 196 apartment units (Opening Year 2025)
- Phase III – 14,400 GSF pharmacy without drive-through and 14,726 GSF commercial building (Opening Year 2027)

The Universe View subdivision will be located about 5 miles north of Interstate Highway 40 (IH 40) and about 7 miles west of Interstate Highway 25 (IH 25). The subdivision can be accessed through Universe Blvd, which connects to Paseo Del Norte Blvd. Paseo Del Norte Blvd is a principal arterial that provides direct access to IH 25. Access to IH 40 is also possible through Unser Blvd, a principal arterial east of the Universe View subdivision. **Figure 1 (Appendix B)** identifies the project area in relation to the surrounding roadway network.

Currently, the site of the proposed subdivision is vacant. Once the subdivision is built, it will have access to Universe Blvd through driveways and the proposed roadway at Rosa Parks Rd and Perezoso Dr. The subdivision will have two driveways intersecting Universe Blvd, three driveways intersecting Rosa Parks Rd, and one driveway intersecting Perezoso Dr. The characteristics of the main access roads to the subdivision site are described in **Table 1.1**. **Table 1.2** compares the existing and proposed characteristics of each access road. Exhibits of the existing and proposed typical sections are also presented in **Appendix A2**.

**Table 1.1 – Access Road Characteristics**

| Roadway                  | Number of Lanes | Classification | Speed Limit (mph) |
|--------------------------|-----------------|----------------|-------------------|
| Universe Blvd            | 2               | Minor Arterial | 35                |
| Rosa Parks Rd (Proposed) | 2               | Local Road     | 30                |
| Perezoso Dr (Proposed)   | 2               | Local Road     | 25                |

Table 1.2 – Existing and Proposed Typical Sections

| Roadway       | Cross-Section | Number of Lanes | Shoulder Width | Median Width | Curb | Bike Lanes | Sidewalk | Paved |
|---------------|---------------|-----------------|----------------|--------------|------|------------|----------|-------|
| Universe Blvd | Existing      | Two - 11 ft ea. | 4 to 6 ft      | None         | No   | No         | No       | Yes   |
|               | Proposed      | Two - 11 ft ea. | None           | 16 ft        | Yes  | Yes        | Yes      | Yes   |
| Rosa Parks Rd | Existing      | Unpaved Road    |                |              |      |            |          |       |
|               | Proposed      | Two - 11 ft ea. | None           | None         | Yes  | Yes        | Yes      | Yes   |
| Perezoso Dr   | Existing      | Unpaved Road    |                |              |      |            |          |       |
|               | Proposed      | Two - 9 ft ea.  | None           | None         | Yes  | None       | Yes      | Yes   |

## STUDY AREA

### Study Intersections

Major intersections in the vicinity of the project area were investigated for this study. **Table 2** includes the intersections investigated, the numbering used in this report, and the intersection control type. The study intersections are also identified with corresponding intersection numbers in **Figure 1 (Appendix B)**.

Table 2 – Study Intersections Numbering and Control Type

| Intersection Numbering | Location                             | Control Type |
|------------------------|--------------------------------------|--------------|
| 1                      | Universe Blvd & Paseo Del Norte Blvd | Signalized   |
| 2                      | Universe Blvd & School Access Road   | Unsignalized |
| 3                      | Universe Blvd & Rosa Parks Rd        | Unsignalized |
| 4                      | Universe Blvd & Driveway 1           | Unsignalized |
| 5                      | Universe Blvd & Driveway 2           | Unsignalized |
| 6                      | Universe Blvd & Perezoso Dr          | Unsignalized |
| 7                      | Universe Blvd & Rainbow Blvd         | Signalized   |
| 8                      | Rosa Parks Rd & Driveway 3           | Unsignalized |
| 9                      | Rosa Parks Rd & Driveway 4           | Unsignalized |
| 10                     | Rosa Parks Rd & Driveway 5           | Unsignalized |
| 11                     | Perezoso Dr & Driveway 6             | Unsignalized |

Intersection 1 is an existing signalized intersection at Universe Blvd and Paseo Del Norte Blvd. Universe Blvd southbound (SB) and Paseo Del Norte Blvd westbound (WB) include one channelized right-turn lane, one through lane, and one dedicated left-turn auxiliary lane. Universe Blvd northbound (NB) and Paseo Del Norte Blvd eastbound (EB) include one dedicated left-turn auxiliary lane, one through lane, and one right-turn auxiliary lane. All left-turns are permitted-protected.

Intersection 2 is an existing unsignalized intersection at Universe Blvd and an access road to Volcano Vista High School. The NB approach of Universe Blvd includes one auxiliary left-turn lane and one through lane. The SB approach of Universe Blvd includes one shared through/right-turn lane. The EB approach of the driveway includes one wide lane where vehicles separate into a left-turn lane and right-turn lane.

Intersection 3 is an unsignalized intersection at Universe Blvd and Rosa Park Rd. Currently, Rosa Parks Rd is an unpaved road. The Universe View subdivision will pave a segment of Rosa Parks Rd east of Universe Blvd and provide a two-lane street (one lane in each direction). The NB and SB directions along Universe Blvd will be free flow, and the WB direction will be stop-controlled.

Intersection 4 is a future unsignalized three-way intersection at Universe Blvd and Driveway 1. The driveway includes one entry and one exit lane to the development. The NB and SB directions along Universe Blvd will be free flow, and the WB direction will be stop-controlled.

Intersection 5 is a future unsignalized three-way intersection at Universe Blvd and Driveway 2. The driveway includes one entry and one exit lane to the development. The NB and SB directions along Universe Blvd will be free flow, and the WB direction will be stop-controlled.

Intersection 6 is an unsignalized intersection at Universe Blvd and Perezoso Dr. Currently, Perezoso Dr is an unpaved road. The Universe View subdivision will pave a segment of Perezoso Dr east of Universe Blvd and provide a two-lane road (one lane in each direction). The NB and SB directions along Universe Blvd will be free flow, and the WB direction will be stop-controlled.

Intersection 7 is an existing signalized intersection at Universe Blvd and Rainbow Blvd. Universe Blvd, NB and SB, include one dedicated left-turn auxiliary lane and one shared through/right-turn lane. Rainbow Blvd, EB and WB, include one dedicated left-turn auxiliary lane, one through lane, and one shared through/right-turn lane. All left-turns are permitted-protected.

Intersection 8 is a future unsignalized three-way intersection at Rosa Parks Rd and Driveway 3. The driveway includes one entry and one exit lane to the development. The EB and WB directions along Rosa Parks Rd will be free flow, and the NB direction will be stop-controlled.

Intersection 9 is a future unsignalized three-way intersection at Rosa Parks Rd and Driveway 4. The driveway includes one entry and one exit lane to the development. The EB and WB directions along Rosa Parks Rd will be free flow, and the NB direction will be stop-controlled.

Intersection 10 is a future unsignalized three-way intersection at Rosa Parks Rd and Driveway 5. The driveway includes one entry and one exit lane to the development. The EB and WB directions along Rosa Parks Rd will be free flow, and the NB direction will be stop-controlled.

Intersection 11 is a future unsignalized three-way intersection at Perezoso Dr and Driveway 6. The driveway includes one entry and one exit lane to the development. The EB and WB directions along Perezoso Dr will be free flow, and the SB direction will be stop-controlled.

### Adjacent Developments

The proposed project site is primarily surrounded by vacant land east and west of the project site, and residential developments north of the school access road and south of Rainbow Blvd. Volcano Vista High School and Tony Hillerman Middle School are located within a mile northwest of the project site. Ventana Ranch Park, Ventana Ranch Elementary, Sunset View Elementary, James Monroe Middle school, and a small shopping center are located north of Paseo del Norte approximately 1.5 miles from the project site.

### Future Developments

Four future developments planned in the vicinity of the project site were identified. The developments considered are described below and are labeled in **Figure 1 (Appendix B)**. Two of these developments were under construction during the data collection process, and the other two will be constructed in future years. Therefore, the expected generated trips for all developments will need to be considered in this study.

The traffic studies provided by the City of Albuquerque for the four developments were reviewed to identify the expected trip generation for each. The traffic generated by the developments was distributed through the roadway network and study intersections to consider their impact in the study area. The generated trips considered for the study intersections are presented in **Figures 7 through 10 in Appendix B**.

- Sonata Apartments
  - Description: 245-unit multi-family residential development on approximately 29.9 acres
  - Location: located along the east side of Universe Blvd, south of Paseo del Norte Blvd
  - Completion Year: 2022
- Trails Tract 1
  - Description: 333 multi-family residential units
  - Location: located in the southwest corner of Paseo del Norte and Woodmont Ave
  - Completion Year: 2022.
- La Cuentista
  - Description: 244-unit single family residential development on approximately 59.08 acres
  - Location: southeast of the Paseo del Norte Blvd and Unser Blvd intersection
  - Completion Year: 2024
- Ventana Ranch Retail Commercial Development
  - Description: 92,240 SF of retail commercial floor space on 11 acres of land
  - Location: northeast corner of the Paseo del Norte Blvd and Universe Blvd intersection
  - Completion Year: 2025

### Study Scenarios

For this study, Synchro 11 software was used to analyze the traffic conditions for the following scenarios:

- 2022 Existing Conditions
- Phase I No Build Conditions (Year 2023 without Universe View subdivision)
- Phase I Build Conditions (Year 2023 with Universe View subdivision)
- Phase II No Build Conditions (Year 2025 without Universe View subdivision)
- Phase II Build Conditions (Year 2025 with Universe View subdivision)
- Phase III No Build Conditions (Year 2027 without Universe View subdivision)
- Phase III Build Conditions (Year 2027 with Universe View subdivision)
- Horizon Year No Build (Year 2033 without Universe View subdivision)
- Horizon Year No Build (Year 2033 with Universe View subdivision)

All No Build and Build scenarios will include background traffic growth and the four future developments identified in the previous section.

## TRAFFIC VOLUMES

### Existing Traffic Volumes

Existing turning movement counts for the three existing project intersections were collected during the AM and PM peak hours on March 16 and 17 of year 2022. The data was collected between the hours of 7 AM to 9 AM and 4 PM to 6 PM for the Universe Blvd & Paseo del Norte Blvd intersection. For the Universe Blvd & School access road and Universe Blvd & Rainbow Blvd intersections, traffic volumes were collected from 6:45 AM to 8:45 AM, and 3:45 PM and 5:45 PM. Turning movement count data is included in the **Appendix C**.

Traffic volumes were analyzed to determine the AM and PM peak hour volumes (PHV) and peak hour factors (PHF). PHVs were calculated by taking the highest four-consecutive 15-minute total volumes for the intersection over their respective hour data collection period. Using this calculated peak hour, corresponding peak hour factors were calculated for each turning movement.

Peak hour factors are a traffic parameter used to describe the relationship between the peak 15-minute flow rate within the peak hour and the total peak hour volume. A high PHF (closer to 1) indicates that traffic is spread out relatively evenly throughout the peak hour. A low PHF (closer to 0) indicates that traffic is concentrated within the peak 15 minutes. **Table 3** shows the peak hour starting time, the peak hour turning movement volumes, and peak hour factors for the AM and PM periods. **Figure 2** in **Appendix B** shows the 2022 AM and PM turning movement volumes for the study intersections. Existing 2022 traffic volumes for Intersections 3 through 6 were determined by balancing traffic volumes between Intersections 2 and 7. Traffic volumes for Intersections 8 through 11 will be zero for all movements since the driveways to the Universe View development currently do not exist.

From **Table 3**, it is observed that AM peak hours mainly occurred at 6:45 AM or 7:00 AM. PHFs during the AM period range from 0.39 to 0.87. During the PM period, the PM peak hours mainly occurred at 4:30 PM or 4:45 PM. PHFs during the PM period range from 0.25 to 0.95.

Table 3 – Existing Peak Hour Movements

| 2022 Existing Peak Hour Movements* |                                      |             |            |         |         |        |           |         |         |        |            |         |         |        |           |         |         |        |
|------------------------------------|--------------------------------------|-------------|------------|---------|---------|--------|-----------|---------|---------|--------|------------|---------|---------|--------|-----------|---------|---------|--------|
| Intersection                       |                                      | Peak Hour   | Southbound |         |         |        | Westbound |         |         |        | Northbound |         |         |        | Eastbound |         |         |        |
|                                    |                                      |             | Left       | Thru    | Right   | U-Turn | Left      | Thru    | Right   | U-Turn | Left       | Thru    | Right   | U-Turn | Left      | Thru    | Right   | U-Turn |
| 1                                  | Universe Blvd & Paseo Del Norte Blvd | AM PH Start | 7:00 AM    | 7:00 AM | 7:00 AM | -      | 7:00 AM   | 7:00 AM | 7:00 AM | -      | 7:00 AM    | 7:00 AM | 7:00 AM | -      | 7:00 AM   | 7:00 AM | 7:00 AM | -      |
|                                    |                                      | AM PHV      | 278        | 455     | 237     | -      | 71        | 152     | 120     | -      | 9          | 198     | 89      | -      | 148       | 333     | 57      | -      |
|                                    |                                      | AM PHF      | 0.869      | 0.784   | 0.884   | -      | 0.612     | 0.691   | 0.732   | -      | 0.450      | 0.786   | 0.586   | -      | 0.841     | 0.816   | 0.792   | -      |
|                                    |                                      | PM PH Start | 4:45 PM    | 4:45 PM | 4:45 PM | -      | 4:45 PM   | 4:45 PM | 4:45 PM | -      | 4:45 PM    | 4:45 PM | 4:45 PM | -      | 4:45 PM   | 4:45 PM | 4:45 PM | -      |
|                                    |                                      | PM PHV      | 143        | 302     | 252     | -      | 99        | 321     | 288     | -      | 6          | 351     | 75      | -      | 204       | 234     | 5       | -      |
|                                    |                                      | PM PHF      | 0.794      | 0.812   | 0.955   | -      | 0.798     | 0.912   | 0.947   | -      | 0.750      | 0.852   | 0.815   | -      | 0.729     | 0.813   | 0.625   | -      |
| 2                                  | Universe Blvd & School Access Road   | AM PH Start | 6:45 AM    | 6:45 AM | 6:45 AM | -      | -         | -       | -       | -      | 6:45 AM    | 6:45 AM | 6:45 AM | -      | 6:45 AM   | 6:45 AM | 6:45 AM | -      |
|                                    |                                      | AM PHV      | 0          | 0       | 125     | -      | -         | -       | -       | -      | 53         | 0       | 0       | -      | 11        | 0       | 25      | -      |
|                                    |                                      | AM PHF      | 0          | 0       | 0.473   | -      | -         | -       | -       | -      | 0.491      | 0       | 0       | -      | 0.393     | 0       | 0.446   | -      |
|                                    |                                      | PM PH Start | 4:30P M    | 4:30P M | 4:30 PM | -      | -         | -       | -       | -      | 4:30P M    | 4:30 PM | 4:30 PM | -      | 4:30 PM   | 4:30 PM | 4:30 PM | -      |
|                                    |                                      | PM PHV      | 0          | 254     | 0       | -      | -         | -       | -       | -      | 1          | 402     | 0       | -      | 2         | 0       | 4       | -      |
|                                    |                                      | PM PHF      | 0          | 0.934   | 0       | -      | -         | -       | -       | -      | 0.250      | 0.922   | 0       | -      | 0.500     | 0       | 0.333   | -      |
| 7                                  | Universe Blvd & Rainbow Blvd         | AM PH Start | 6:45 AM    | 6:45 AM | 6:45 AM | -      | 6:45 AM   | 6:45 AM | 6:45 AM | -      | 6:45 AM    | 6:45 AM | 6:45 AM | -      | 6:45 AM   | 6:45 AM | 6:45 AM | -      |
|                                    |                                      | AM PHV      | 524        | 27      | 15      | -      | 10        | 338     | 165     | -      | 53         | 40      | 47      | -      | 2         | 406     | 14      | -      |
|                                    |                                      | AM PHF      | 0.868      | 0.750   | 0.417   | -      | 0.500     | 0.665   | 0.859   | -      | 0.491      | 0.714   | 0.734   | -      | 0.500     | 0.775   | 0.500   | -      |
|                                    |                                      | PM PH Start | 4:30 PM    | 4:30 PM | 4:30 PM | -      | 4:30 PM   | 4:30 PM | 4:30 PM | -      | 4:30 PM    | 4:30 PM | 4:30 PM | -      | 4:30 PM   | 4:30 PM | 4:30 PM | -      |
|                                    |                                      | PM PHV      | 214        | 45      | 2       | -      | 58        | 337     | 383     | -      | 34         | 47      | 10      | -      | 2         | 221     | 10      | -      |
|                                    |                                      | PM PHF      | 0.836      | 0.662   | 0.500   | -      | 0.853     | 0.896   | 0.878   | -      | 0.625      | 0.783   | 0.850   | -      | 0.500     | 0.650   | 0.625   | -      |

\* The “-” indicates that there is no traffic for that movement



## Background Growth

The study area population and corresponding traffic volumes will continue to grow in future years. To account for future traffic growth, existing traffic counts were projected using a growth rate (GR) and a growth factor (GF). The growth rate is expressed as a percentage of growth over a year. For this study, a 3.1% growth rate was used to forecast existing 2022 traffic to the build-out years 2023, 2025, 2027, and the Horizon year 2033. This growth rate was determined from a linear regression of the historical average weekday daily traffic (AWDT) data obtained from the Mid-Region Council of Governments' (MRCOG) website. The traffic data and linear regression worksheet are provided in **Appendix D**.

In this study, future traffic forecasts were determined using a growth factor, which is dependent on the growth rate. This growth factor is calculated using the equation  $GF = (1+GR)^n$ , where  $n$  is time in years. The calculated growth factors for 2023, 2025, 2027 and 2033 are 1.03, 1.10, 1.16, and 1.40, respectively. The existing 2022 AM and PM turning movement volumes were multiplied by these growth factors to determine the forecasted turning movements for 2023, 2025, 2027, and 2033. **Figures 3 through 6 in Appendix B** include the projected peak hour traffic volumes for the 2023, 2025, 2027, and 2033 AM and PM scenarios.

In addition to considering traffic growth expected to occur by population growth, the generated traffic for the four future developments in the vicinity of the project area were included in the analysis years based on their respective completion year. Therefore, only the generated traffic for the Sonata and Trails Track 1 developments were included in the 2023 analysis scenarios. All developments were included in the 2025, 2027, and 2033 analysis scenarios. **Figures 11 through 14 in Appendix B** include the No Build peak hour traffic volumes for the 2023, 2025, 2027, and 2033 AM and PM scenarios. These volumes were calculated by adding the generated traffic of the four future developments to the projected traffic volumes.

## Trip Generation

The number of trips generated by the proposed developments were calculated using the *ITE Trip Generation Manual*, 11<sup>th</sup> Edition. The average trip rates for the peak hour of the adjacent street traffic were used for this study. These trips represent the highest peak hour vehicle trip ends generated by the development for a peak hour between 7 to 9 AM and a peak hour between 4 to 6 PM. The proposed Universe View subdivision developments were categorized into four different land uses. The developments were classified as follows:

- Phase I – 162 townhome units → Single-Family Attached Housing (Land Use 215)
- Phase II – 196 apartment units → Multifamily Housing (Low-Rise) (Land Use 220)
- Phase III –
  - 14,400 GSF pharmacy without drive-through → Pharmacy/Drugstore without Drive-Through Window (Land Use 880)
  - 14,726 GSF commercial building (Opening Year 2027) → Strip Retail Plaza (<40K) (Land Use 822)

Trip generation for these developments was calculated using the fitted curve equations for Land Use Codes 215, 220, 822 and 880. The generated trips for the AM and PM peak hour are presented in **Table 4**. Directional distribution for the generated trips were also determined using the *ITE Trip Generation Manual*. The number of vehicles entering and exiting the facility are also presented in **Table 4**.

**Table 4 – Proposed Development Generated Trips**

|                                  | Single-Family<br>Attached Housing<br>Land Use 215 |           | Multifamily<br>Housing (Low-Rise)<br>Land Use 220 |            | Strip Retail Plaza<br>(<40K)<br>Land Use 822 |            | Pharmacy/Drugsto<br>re without Drive-<br>Through Window<br>(Land Use 880) |            |
|----------------------------------|---------------------------------------------------|-----------|---------------------------------------------------|------------|----------------------------------------------|------------|---------------------------------------------------------------------------|------------|
|                                  | AM                                                | PM        | AM                                                | PM         | AM                                           | PM         | AM                                                                        | PM         |
| <b>TOTAL<br/>GENERATED TRIPS</b> | <b>79</b>                                         | <b>93</b> | <b>84</b>                                         | <b>105</b> | <b>37</b>                                    | <b>102</b> | <b>71</b>                                                                 | <b>123</b> |
| % Entering                       | 30%                                               | 57%       | 24%                                               | 63%        | 60%                                          | 50%        | 65%                                                                       | 49%        |
| Trips Entering                   | 24                                                | 53        | 20                                                | 66         | 22                                           | 51         | 46                                                                        | 60         |
| %Exiting                         | 70%                                               | 43%       | 76%                                               | 37%        | 40%                                          | 50%        | 35%                                                                       | 51%        |
| Trips Exiting                    | 55                                                | 40        | 64                                                | 39         | 15                                           | 51         | 25                                                                        | 63         |

Internal capture and pass-by trips were also considered in this study and are described in the following sections.

#### *Internal Capture*

According to the *ITE Trip Generation Handbook 3<sup>rd</sup> Edition*, internal capture occurs at a site when two or more land uses have a possibility of interacting with each other, particularly where the trip can be made by walking. This can result in the total generation of trips being reduced. Internal capture was considered between the proposed apartments and the pharmacy and commercial developments since they will be directly connected through an internal street system and pedestrian walkways. The methodology outlined in Chapter 6 of the *ITE Trip Generation Handbook 3<sup>rd</sup> Edition* and the National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture Estimation Tool were used to calculate internal capture for these developments. The spreadsheet tool considers the total trip generation of the proposed developments, vehicle occupancy, percent transit/non-motorized trips for entering and exiting traffic, and the distance between the developments. The total generated trips for the commercial development and pharmacy were considered retail trips in the spreadsheet calculations. An average weighted distance between the residential and commercial developments of 865-ft was calculated using the methodology presented in the handbook. Vehicle occupancy and percent transit/non-motorized trips were determined from Table B.2 of the *ITE Trip Generation Handbook*. To be conservative, smaller internal capture percentages than those calculated with the spreadsheet tool were considered for the outbound retail and inbound residential trips for the PM peak hour. The internal capture percentages used in the analysis are presented in **Table 5**. Additional information on the internal capture calculations is provided in **Appendix E**.

**Table 5 – Internal Capture Percentages by Land Use**

| Peak Hour    | Land Use    | Entering Trips | Exiting Trips |
|--------------|-------------|----------------|---------------|
| AM Peak Hour | Retail      | 1%             | 0%            |
|              | Residential | 0%             | 1%            |
| PM Peak Hour | Retail      | 8%             | 20%           |
|              | Residential | 35%            | 23%           |

*Pass-By Trips*

Pass-by trips are defined as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips were considered in this study since the pharmacy and commercial developments are an attractive stop for commuters on Universe Blvd. Pass-by trips were only considered for the Universe Blvd & Rosa Parks Rd and Universe Blvd & Driveway 1 intersections. These two intersections are the access points for the pharmacy and commercial developments.

Using data from the *ITE Trip Generation Handbook 3<sup>rd</sup> Edition*, pass-by trip volume adjustments for the pharmacy and commercial developments were calculated. A 53% and 40% average pass-by trip adjustment was applied to the AM and PM peak hour generated trips of the pharmacy and commercial development, respectively. Pass-by trips were applied to the trips adjusted by internal capture; however, the number of entering and exiting trips to/from the driveways providing access to the pharmacy and commercial developments were not reduced by the pass-by trips.

*Trip Adjustment Summary*

Internal capture only affected the trips generated by the apartments, pharmacy, and commercial developments. Pass-by trips only affected trips generated by the pharmacy and commercial developments. The internal capture and pass-by trip adjustments for each development are presented in **Tables 6 through 8**.

**Table 6 – Trip Adjustments for Proposed Apartments**

| Generated Trips    | AM Peak Hour             |                                           | PM Peak Hour             |                                           |
|--------------------|--------------------------|-------------------------------------------|--------------------------|-------------------------------------------|
|                    | Original Generated Trips | Final Trips Adjusted for Internal Capture | Original Generated Trips | Final Trips Adjusted for Internal Capture |
| <b>Total Trips</b> | 84                       | 83                                        | 105                      | 73                                        |
| <b>Entering</b>    | 20                       | 20                                        | 66                       | 43                                        |
| <b>Exiting</b>     | 64                       | 63                                        | 39                       | 30                                        |

Table 7 – Trip Adjustments for Commercial Development

| Generated Trips    | AM Peak Hour             |                                      |               |                   | PM Peak Hour             |                                     |               |                   |
|--------------------|--------------------------|--------------------------------------|---------------|-------------------|--------------------------|-------------------------------------|---------------|-------------------|
|                    | Original Generated Trips | Trips Adjusted for Internal Capture* | Pass-By Trips | Non-Pass-By Trips | Original Generated Trips | Trips Adjusted for Internal Capture | Pass-By Trips | Non-Pass-By Trips |
| <b>Total Trips</b> | 37                       | 37                                   | 15            | 22                | 102                      | 88                                  | 35            | 53                |
| <b>Entering</b>    | 22                       | 22                                   | 9             | 13                | 51                       | 47                                  | 19            | 28                |
| <b>Exiting</b>     | 15                       | 15                                   | 6             | 9                 | 51                       | 41                                  | 16            | 25                |

\*Internal capture reductions were less than one trip, so they were not considered.

Table 8 – Trip Adjustments for Pharmacy

| Generated Trips    | AM Peak Hour             |                                      |               |                   | PM Peak Hour             |                                     |               |                   |
|--------------------|--------------------------|--------------------------------------|---------------|-------------------|--------------------------|-------------------------------------|---------------|-------------------|
|                    | Original Generated Trips | Trips Adjusted for Internal Capture* | Pass-By Trips | Non-Pass-By Trips | Original Generated Trips | Trips Adjusted for Internal Capture | Pass-By Trips | Non-Pass-By Trips |
| <b>Total Trips</b> | 71                       | 70                                   | 37            | 33                | 123                      | 105                                 | 56            | 49                |
| <b>Entering</b>    | 46                       | 45                                   | 24            | 21                | 60                       | 55                                  | 29            | 26                |
| <b>Exiting</b>     | 25                       | 25                                   | 13            | 12                | 63                       | 50                                  | 27            | 23                |

\*Internal capture reductions were less than one trip, so they were not considered.

### Trip Distribution

Traffic generated by the proposed developments was distributed and assigned to the study area intersections using the Gravity Model distributions. Population and employment data for years 2016 and 2040 was obtained for all Data Analysis Subzones (DASZ) within a 2-mile radius of the proposed Universe View development. The data was obtained from the 2040 Socioeconomic Forecasts by Subareas for the Mid-Region of New Mexico supplied by MRCOG. Population data was used to determine the pharmacy and commercial development trip distributions, while employment data was used to determine the townhome and apartment trip distributions. Population and employment data was interpolated for each of the implementation years (Phase I – 2023, Phase II-2025, and Phase III- 2027). The DASZ were then grouped based on the possible origins/destinations of the trips generated by the proposed Universe View development. The figure in **Appendix F** shows the DASZ, possible origins/destinations (A through G), and the percentage of trips of each DASZ in route to/from the destinations/origins (A through G). The trip distribution calculations are also included in **Appendix F**. The following assumptions were also considered for the trip distribution of each driveway:

1. The townhomes will be accessed through the Universe Blvd & Rosa Parks Rd intersection, and Driveways 2, 4 and 5.
2. The apartments will be accessed through the Universe Blvd & Perezoso Dr intersection, and Driveways 1, 2 and 6.

3. The pharmacy and commercial developments will be accessed through Universe Blvd & Rosa Parks Rd intersection, and Driveways 1 and 3.

Considering the Gravity Model distributions and the assumptions mentioned, the trip distributions were assumed and generated trips were calculated for the turning movements. **Figures 15 through 30 (Appendix B)** summarize the inbound and outbound trip distribution and number of generated trips for the study intersections for the AM and PM peak hours. To determine the 2023, 2025, 2027 and 2033 Build traffic volumes, the generated trips of each development were then added to the 2023, 2025, 2027, and 2033 No Build traffic volumes according to opening year of each development. **Figures 31 through 34 (Appendix B)** show the AM and PM peak hour turning movements for the Build scenarios.

## TRAFFIC ANALYSIS

### Methodology

To determine the traffic impact, the intersection level of service (LOS) and delay were evaluated for the study intersections.

Intersection LOS is a measure of driving conditions and vehicle delay. In addition, the LOS describes the quality of traffic operation on roadway facilities. The traffic capacity of intersections was evaluated to determine the LOS for the AM and PM peak hours. LOS range from A (best) to F (poorest). LOS A, B, and C indicate conditions where traffic can move freely. LOS D describes conditions where delay is noticeable. LOS E and F indicate conditions where traffic volumes are close to capacity or beyond capacity, experiencing significant delays, slow speeds or stop-and-go conditions, and queuing at signalized intersections. **Table 9** outlines the LOS definitions for signalized and unsignalized intersections as defined in the Highway Capacity Manual.

**Table 9 – Level of Service Standards**

| LOS | Signalized Intersection Delay (sec) | Unsignalized Intersection Delay (sec) | Traffic Flow Characteristics                             |
|-----|-------------------------------------|---------------------------------------|----------------------------------------------------------|
| A   | <10                                 | 0-10                                  | Virtually free flow, completely unimpeded                |
| B   | >10-20                              | >10-15                                | Stable Flow with slight delays, less freedom to maneuver |
| C   | >20-35                              | >15-25                                | Stable flow with delays, less freedom to maneuver        |
| D   | >35-55                              | >25-35                                | High density, but stable flow                            |
| E   | >55-80                              | >35-50                                | Operating conditions at or near capacity, unstable flow  |
| F   | >80                                 | >50                                   | Forced flow, breakdown conditions                        |

< indicates less than

> indicates greater than

Intersection delay is calculated by taking a weighted average of the total delays for each intersection lane group. Total delay includes queue delay and delay from stopping for signalized intersections. Intersection delay for unsignalized intersections does not include queue delay. Using this intersection delay, a LOS value is assigned to the intersection.

For this study, Synchro 11 software was used to analyze the traffic conditions for the following scenarios:

- 2022 Existing Conditions
- Phase I No Build Conditions (Year 2023 without Universe View subdivision)
- Phase I Build Conditions (Year 2023 with Universe View subdivision)
- Phase II No Build Conditions (Year 2025 without Universe View subdivision)
- Phase II Build Conditions (Year 2025 with Universe View subdivision)
- Phase III No Build Conditions (Year 2027 without Universe View subdivision)
- Phase III Build Conditions (Year 2027 with Universe View subdivision)
- Horizon Year No Build (Year 2033 without Universe View subdivision)
- Horizon Year No Build (Year 2033 with Universe View subdivision)

### Traffic Analysis Results

The LOS and delay for all scenarios were calculated using the HCM 6<sup>th</sup> edition methodology included in Synchro Version 11. These parameters are summarized in **Tables 10** through **20** for both AM and PM peak hours. The volume to capacity (v/c) ratio and 95<sup>th</sup> percentile queue length are also included in the tables. Detailed results are included in the following appendices:

- **Appendix G** – Existing
- **Appendix H** – Phase I 2023, No Build
- **Appendix I** – Phase I 2023, Build
- **Appendix J** – Phase II 2025, No Build
- **Appendix K** – Phase II 2025, Build
- **Appendix L** – Phase III 2027, No Build
- **Appendix M** – Phase III 2027, Build
- **Appendix N** – Horizon 2033, No Build
- **Appendix O** – Horizon 2033, Build
- **Appendix P** – Mitigation 2033

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**Table 10** summarizes the intersection LOS, approach LOS, 95<sup>th</sup> percentile queue length, and volume to capacity (v/c) ratio for all traffic movements of the signalized Intersection 1. The results are presented for the Existing, Phase I, Phase II, Phase III, and Horizon year AM and PM peak hours of the No Build and Build scenarios. Based on the analysis results, Intersection 1 is expected to fail in future years even without the proposed Universe View development. It can be noted that the proposed development will only increase the intersection delay by less than one second. Minimal impacts are also observed for the 95<sup>th</sup> percentile queue and v/c ratio. Therefore, no recommendations are made for Intersection 1. The City may consider optimizing the signal timing in the future to improve the intersection delay. **Table 10** also shows the approximate left-turn and right turn auxiliary lane storage lengths in the top row. It can be noted that the EB and SB left-turn and NB right-turn auxiliary lane storage lengths are exceeded in the No Build conditions. The City may consider increasing the storage length for these movements to accommodate the turning traffic.

Table 10 – Intersection 1 Traffic Analysis Results

| Intersection |                                               | PK<br>HR | Scenario                   | Intersection |       | Approach LOS |    |    |    | 95 <sup>th</sup> Percentile Queue |      |              |               |       |     |               |      |              |               |      | V/C Ratio     |      |      |      |      |      |     |      |      |      |      |      |      |
|--------------|-----------------------------------------------|----------|----------------------------|--------------|-------|--------------|----|----|----|-----------------------------------|------|--------------|---------------|-------|-----|---------------|------|--------------|---------------|------|---------------|------|------|------|------|------|-----|------|------|------|------|------|------|
|              |                                               |          |                            | LOS          | Delay | EB           | WB | NB | SB | EBL<br>(70')                      | EBT  | EBR<br>(70') | WBL<br>(160') | WBT   | WBR | NBL<br>(125') | NBT  | NBR<br>(35') | SBL<br>(295') | SBT  | SBR<br>(295') | EBL  | EBT  | EBR  | WBL  | WBT  | WBR | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| 1            | Universe<br>Blvd &<br>Paseo Del<br>Norte Blvd | AM       | Existing 2022              | C            | 31.4  | D            | E  | B  | B  | 120                               | #377 | 0            | 61            | 259   | -   | 9             | 169  | 0            | 169           | 359  | 41            | 0.67 | 0.86 | 0.15 | 0.53 | 0.91 | -   | 0.06 | 0.35 | 0.21 | 0.53 | 0.61 | 0.28 |
|              |                                               |          | Phase 1-No<br>Build 2023   | D            | 42.5  | E            | E  | B  | B  | 136                               | #514 | 0            | 77            | #330  | -   | 10            | 175  | 37           | 175           | 375  | 42            | 0.75 | 1.05 | 0.15 | 0.71 | 1.01 | -   | 0.08 | 0.37 | 0.37 | 0.56 | 0.66 | 0.31 |
|              |                                               |          | Phase 1- Build<br>2023     | D            | 43.0  | E            | E  | B  | B  | 136                               | #514 | 1            | 83            | #330  | -   | 11            | 176  | 50           | 175           | 377  | 42            | 0.75 | 1.06 | 0.15 | 0.75 | 1.01 | -   | 0.09 | 0.37 | 0.42 | 0.56 | 0.66 | 0.31 |
|              |                                               |          | Phase 2-No<br>Build 2025   | E            | 56.6  | F            | F  | B  | C  | #179                              | #564 | 3            | 80            | #408  | -   | 10            | 192  | 41           | 195           | 416  | 51            | 0.81 | 1.13 | 0.16 | 0.73 | 0.12 | -   | 0.09 | 0.41 | 0.39 | 0.64 | 0.71 | 0.34 |
|              |                                               |          | Phase 2- Build<br>2025     | E            | 57.2  | F            | F  | C  | C  | #178                              | #564 | 4            | 90            | #408  | -   | 11            | 196  | 67           | 195           | 419  | 51            | 0.81 | 1.14 | 0.17 | 0.82 | 0.12 | -   | 0.11 | 0.42 | 0.49 | 0.64 | 0.72 | 0.34 |
|              |                                               |          | Phase 3-No<br>Build 2027   | E            | 64.7  | F            | F  | C  | C  | #197                              | #600 | 6            | 83            | #438  | -   | 11            | 203  | 44           | 207           | 448  | 59            | 0.84 | 1.18 | 0.17 | 0.76 | 1.27 | -   | 0.11 | 0.43 | 0.41 | 0.69 | 0.75 | 0.36 |
|              |                                               |          | Phase 3- Build<br>2027     | E            | 65.4  | F            | F  | C  | C  | #195                              | #600 | 12           | 94            | #438  | -   | 11            | 207  | 72           | 207           | 461  | 61            | 0.84 | 1.2  | 0.19 | 0.85 | 1.27 | -   | 0.14 | 0.44 | 0.51 | 0.69 | 0.76 | 0.36 |
|              |                                               |          | Horizon - No<br>Build 2033 | F            | 101.4 | F            | F  | C  | C  | #263                              | #741 | 17           | 95            | #551  | -   | 11            | 246  | 58           | #324          | #615 | 102           | 0.94 | 1.41 | 0.21 | 0.86 | 1.54 | -   | 0.21 | 0.53 | 0.46 | 0.91 | 0.91 | 0.43 |
|              |                                               |          | Horizon - Build<br>2033    | F            | 101.5 | F            | F  | C  | C  | #263                              | #741 | 22           | 107           | #551  | -   | 13            | 250  | 88           | #329          | #657 | 105           | 0.94 | 1.41 | 0.23 | 0.97 | 1.54 | -   | 0.24 | 0.54 | 0.57 | 0.91 | 0.92 | 0.43 |
|              |                                               | PM       | Existing 2022              | D            | 47.1  | E            | E  | D  | C  | #235                              | 201  | 0            | 67            | #692  | -   | 11            | #369 | 29           | 113           | 278  | 56            | 1.10 | 0.40 | 0.01 | 0.25 | 1.01 | -   | 0.02 | 0.78 | 0.18 | 0.64 | 0.51 | 0.34 |
|              |                                               |          | Phase 1-No<br>Build 2023   | E            | 61.6  | E            | F  | D  | C  | #254                              | 250  | 0            | 105           | #855  | -   | 13            | #404 | 61           | 116           | 290  | 58            | 1.16 | 0.51 | 0.02 | 0.45 | 1.16 | -   | 0.03 | 0.81 | 0.27 | 0.69 | 0.53 | 0.36 |
|              |                                               |          | Phase 1- Build<br>2023     | E            | 61.3  | E            | F  | D  | C  | #254                              | 250  | 0            | 116           | #855  | -   | 14            | #406 | 73           | 116           | 293  | 58            | 1.16 | 0.51 | 0.02 | 0.5  | 1.16 | -   | 0.04 | 0.81 | 0.31 | 0.69 | 0.53 | 0.36 |
|              |                                               |          | Phase 2-No<br>Build 2025   | F            | 95.4  | F            | F  | D  | C  | #313                              | 629  | 0            | 110           | #1070 | -   | 13            | #462 | 65           | #181          | 319  | 61            | 1.32 | 0.55 | 0.02 | 0.49 | 1.37 | -   | 0.04 | 0.91 | 0.29 | 0.88 | 0.58 | 0.39 |
|              |                                               |          | Phase 2- Build<br>2025     | F            | 94.2  | F            | F  | D  | C  | #311                              | 269  | 0            | 130           | #1070 | -   | 14            | #467 | 87           | #181          | 324  | 61            | 1.32 | 0.55 | 0.02 | 0.58 | 1.37 | -   | 0.05 | 0.91 | 0.35 | 0.88 | 0.61 | 0.4  |
|              |                                               |          | Phase 3-No<br>Build 2027   | F            | 106.8 | F            | F  | E  | C  | #335                              | 282  | 0            | 114           | #1131 | -   | 13            | #498 | 69           | #195          | 338  | 62            | 1.39 | 0.57 | 0.02 | 0.53 | 1.44 | 62  | 0.04 | 0.96 | 0.3  | 0.91 | 0.61 | 0.41 |
|              |                                               |          | Phase 3- Build<br>2027     | F            | 105.6 | F            | F  | E  | C  | #334                              | 282  | 0            | 136           | #1131 | -   | 21            | #521 | 93           | #195          | 360  | 63            | 1.39 | 0.58 | 0.04 | 0.63 | 1.44 | 63  | 0.09 | 0.99 | 0.37 | 0.91 | 0.66 | 0.42 |
|              |                                               |          | Horizon - No<br>Build 2033 | F            | 157.4 | F            | F  | F  | D  | #426                              | 340  | 0            | 129           | #1375 | -   | 14            | #648 | 84           | #262          | 425  | 88            | 1.65 | 0.68 | 0.02 | 0.69 | 1.68 | -   | 0.07 | 1.16 | 0.35 | 1.08 | 0.76 | 0.48 |
|              |                                               |          | Horizon - Build<br>2033    | F            | 156.5 | F            | F  | F  | D  | #424                              | 340  | 0            | 152           | #1375 | -   | 22            | #669 | 109          | #262          | #482 | 100           | 1.65 | 0.69 | 0.04 | 0.81 | 1.68 | -   | 0.14 | 1.19 | 0.41 | 1.08 | 0.82 | 0.5  |

# - Indicates that the volume for the 95<sup>th</sup> percentile cycle exceeds capacity.

**Table 11** summarizes the intersection LOS, approach LOS, 95<sup>th</sup> percentile queue length, and volume to capacity (v/c) ratio for all traffic movements of the unsignalized Intersection 2. The results are presented for the Existing, Phase I, Phase II, Phase III, and Horizon year AM and PM peak hours of the No Build and Build scenarios. The three-way intersection is stop controlled in the EB direction, and free flow in the NB and SB directions; therefore, Synchro only evaluates the EB approach and NB left-turn movement. The LOS E for the Horizon 2033 AM peak hour scenario is based on a single stage left turn movement. Since the proposed cross section of Universe Blvd will include a median, a 2-staged left turn movement will be allowed for the EB approach. This will improve the LOS to a C in the AM peak. Therefore, no recommendations are made for Intersection 2. The Synchro results for the 2- staged left turn analysis are provided in **Appendix P**.

Table 11 – Intersection 2 Traffic Analysis Results

| INTERSECTION | PK<br>HR                         | SCENARIO | INTERSECTION            |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |      |     |      |     |     |     |      |     |     |     |     | V/C RATIO |     |       |     |     |     |       |     |     |     |     |     |
|--------------|----------------------------------|----------|-------------------------|-------|--------------|----|----|----|-----------------------------------|------|-----|------|-----|-----|-----|------|-----|-----|-----|-----|-----------|-----|-------|-----|-----|-----|-------|-----|-----|-----|-----|-----|
|              |                                  |          | LOS                     | DELAY | EB           | WB | NB | SB | EBL                               | EBT  | EBR | WBL  | WBT | WBR | NBL | NBT  | NBR | SBL | SBT | SBR | EBL       | EBT | EBR   | WBL | WBT | WBR | NBL   | NBT | NBR | SBL | SBT | SBR |
| 2            | Universe &<br>School<br>Driveway | AM       | Existing 2022           | -     | -            | C  | -  | -  | -                                 | 10   | -   | 10   | -   | -   | -   | 12.5 | -   | -   | -   | -   | 0.117     | -   | 0.109 | -   | -   | -   | 0.138 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 1-No Build 2023   | -     | -            | C  | -  | -  | -                                 | 12.5 | -   | 10   | -   | -   | -   | 12.5 | -   | -   | -   | -   | 0.141     | -   | 0.12  | -   | -   | -   | 0.15  | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 1- Build 2023     | -     | -            | C  | -  | -  | -                                 | 12.5 | -   | 10   | -   | -   | -   | 15   | -   | -   | -   | -   | 0.154     | -   | 0.127 | -   | -   | -   | 0.157 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 2-No Build 2025   | -     | -            | C  | -  | -  | -                                 | 15   | -   | 12.5 | -   | -   | -   | 15   | -   | -   | -   | -   | 0.174     | -   | 0.137 | -   | -   | -   | 0.17  | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 2- Build 2025     | -     | -            | C  | -  | -  | -                                 | 20   | -   | 12.5 | -   | -   | -   | 17.5 | -   | -   | -   | -   | 0.208     | -   | 0.152 | -   | -   | -   | 0.188 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 3-No Build 2027   | -     | -            | C  | -  | -  | -                                 | 17.5 | -   | 12.5 | -   | -   | -   | 17.5 | -   | -   | -   | -   | 0.193     | -   | 0.149 | -   | -   | -   | 0.186 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 3- Build 2027     | -     | -            | C  | -  | -  | -                                 | 22.5 | -   | 15   | -   | -   | -   | 20   | -   | -   | -   | -   | 0.24      | -   | 0.179 | -   | -   | -   | 0.212 | -   | -   | -   | -   | -   |
|              |                                  |          | Horizon - No Build 2033 | -     | -            | D  | -  | -  | -                                 | 37.5 | -   | 20   | -   | -   | -   | 27.5 | -   | -   | -   | -   | 0.363     | -   | 0.217 | -   | -   | -   | 0.269 | -   | -   | -   | -   | -   |
|              |                                  |          | Horizon - Build 2033    | -     | -            | E  | -  | -  | -                                 | 47.5 | -   | 25   | -   | -   | -   | 32.5 | -   | -   | -   | -   | 0.461     | -   | 0.256 | -   | -   | -   | 0.302 | -   | -   | -   | -   | -   |
|              |                                  | PM       | Existing 2022           | -     | -            | B  | -  | -  | -                                 | 0    | -   | 0    | -   | -   | -   | 0    | -   | -   | -   | -   | 0.011     | -   | 0.016 | -   | -   | -   | 0.003 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 1-No Build 2023   | -     | -            | B  | -  | -  | -                                 | 2.5  | -   | 2.5  | -   | -   | -   | 0    | -   | -   | -   | -   | 0.018     | -   | 0.02  | -   | -   | -   | 0.006 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 1- Build 2023     | -     | -            | B  | -  | -  | -                                 | 2.5  | -   | 2.5  | -   | -   | -   | 0    | -   | -   | -   | -   | 0.019     | -   | 0.03  | -   | -   | -   | 0.013 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 2-No Build 2025   | -     | -            | B  | -  | -  | -                                 | 2.5  | -   | 2.5  | -   | -   | -   | 0    | -   | -   | -   | -   | 0.019     | -   | 0.021 | -   | -   | -   | 0.006 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 2- Build 2025     | -     | -            | B  | -  | -  | -                                 | 2.5  | -   | 2.5  | -   | -   | -   | 2.5  | -   | -   | -   | -   | 0.023     | -   | 0.041 | -   | -   | -   | 0.017 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 3-No Build 2027   | -     | -            | B  | -  | -  | -                                 | 2.5  | -   | 2.5  | -   | -   | -   | 0    | -   | -   | -   | -   | 0.02      | -   | 0.022 | -   | -   | -   | 0.007 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 3- Build 2027     | -     | -            | B  | -  | -  | -                                 | 5    | -   | 2.5  | -   | -   | -   | 2.5  | -   | -   | -   | -   | 0.028     | -   | 0.053 | -   | -   | -   | 0.035 | -   | -   | -   | -   | -   |
|              |                                  |          | Horizon - No Build 2033 | -     | -            | B  | -  | -  | -                                 | 2.5  | -   | 2.5  | -   | -   | -   | 0    | -   | -   | -   | -   | 0.026     | -   | 0.028 | -   | -   | -   | 0.007 | -   | -   | -   | -   | -   |
|              |                                  |          | Horizon - Build 2033    | -     | -            | B  | -  | -  | -                                 | 2.5  | -   | 5    | -   | -   | -   | 2.5  | -   | -   | -   | -   | 0.036     | -   | 0.063 | -   | -   | -   | 0.037 | -   | -   | -   | -   | -   |



Table 12 through 15 summarize the intersection LOS, approach LOS, 95<sup>th</sup> percentile queue length, and volume to capacity (v/c) ratio for all traffic movements of unsignalized Intersections 3 through 6. The results are presented for the Existing, Phase I, Phase II, Phase III, and Horizon year AM and PM peak hours of the No Build and Build scenarios. The three-way intersections are stop controlled in the WB direction, and free flow in the NB and SB directions; therefore, Synchro only evaluates the WB approach and SB left-turn movement. It can be noted that all scenarios evaluated meet the minimum acceptable LOS standard (LOS D or better); therefore, no recommendations are made for Intersections 3 through 6 based on LOS impacts. However, the 2033 traffic volumes for the SB left turn movement of Intersection 3 are expected to exceed the traffic volume threshold requiring a left turn lane, as per the City of Albuquerque Development Process Manual (DPM).

Table 12 – Intersection 3 Traffic Analysis Results

| INTERSECTION |                                     | PK<br>HR | SCENARIO               | INTERSECTION |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |     |     |      |     |     |     |     |     |     |     |     | V/C RATIO |     |     |       |     |     |     |     |     |       |     |     |
|--------------|-------------------------------------|----------|------------------------|--------------|-------|--------------|----|----|----|-----------------------------------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-------|-----|-----|-----|-----|-----|-------|-----|-----|
|              |                                     |          |                        | LOS          | DELAY | EB           | WB | NB | SB | EBL                               | EBT | EBR | WBL  | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | EBL       | EBT | EBR | WBL   | WBT | WBR | NBL | NBT | NBR | SBL   | SBT | SBR |
| 3            | Universe<br>Blvd & Rosa<br>Parks Rd | AM       | Existing 2022          | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | 0   | -   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Phase 1-No Build 2023  | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Phase 1- Build 2023    | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 5    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.056 | -   | -   | -   | -   | -   | 0.009 | -   | -   |
|              |                                     |          | Phase 2-No Build 2025  | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Phase 2- Build 2025    | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 5    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.062 | -   | -   | -   | -   | -   | 0.01  | -   | -   |
|              |                                     |          | Phase 3-No Build 2027  | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Phase 3- Build 2027    | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 10   | -   | -   | -   | -   | -   | 2.5 | -   | -   | -         | -   | -   | 0.128 | -   | -   | -   | -   | -   | 0.025 | -   | -   |
|              |                                     |          | Future - No Build 2033 | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Future - Build 2033    | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 15   | -   | -   | -   | -   | -   | 2.5 | -   | -   | -         | -   | -   | 0.159 | -   | -   | -   | -   | -   | 0.026 | -   | -   |
|              |                                     | PM       | Existing 2022          | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Phase 1-No Build 2023  | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Phase 1- Build 2023    | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 2.5  | -   | -   | -   | -   | -   | 2.5 | -   | -   | -         | -   | -   | 0.047 | -   | -   | -   | -   | -   | 0.023 | -   | -   |
|              |                                     |          | Phase 2-No Build 2025  | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Phase 2- Build 2025    | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 5    | -   | -   | -   | -   | -   | 2.5 | -   | -   | -         | -   | -   | 0.052 | -   | -   | -   | -   | -   | 0.024 | -   | -   |
|              |                                     |          | Phase 3-No Build 2027  | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Phase 3- Build 2027    | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 20   | -   | -   | -   | -   | -   | 5   | -   | -   | -         | -   | -   | 0.225 | -   | -   | -   | -   | -   | 0.057 | -   | -   |
|              |                                     |          | Future - No Build 2033 | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |     |
|              |                                     |          | Future - Build 2033    | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 27.5 | -   | -   | -   | -   | -   | 5   | -   | -   | -         | -   | -   | 0.279 | -   | -   | -   | -   | -   | 0.063 | -   | -   |

Table 13 – Intersection 4 Traffic Analysis Results

| INTERSECTION |                                  | PK<br>HR | SCENARIO                | INTERSECTION |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |     |     |      |     |     |     |     |     |     |     | V/C RATIO |     |     |     |     |       |     |     |     |     |     |       |     |   |
|--------------|----------------------------------|----------|-------------------------|--------------|-------|--------------|----|----|----|-----------------------------------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-------|-----|---|
|              |                                  |          |                         | LOS          | DELAY | EB           | WB | NB | SB | EBL                               | EBT | EBR | WBL  | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR       | EBL | EBT | EBR | WBL | WBT   | WBR | NBL | NBT | NBR | SBL | SBT   | SBR |   |
| 4            | Universe<br>Blvd &<br>Driveway 1 | AM       | Existing 2022           | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     |     |   |
|              |                                  |          | Phase 1-No Build 2023   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Phase 1- Build 2023     | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Phase 2-No Build 2025   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Phase 2- Build 2025     | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 5    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | 0.057 | -   | -   | -   | -   | -   | 0.003 | -   | - |
|              |                                  |          | Phase 3-No Build 2027   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Phase 3- Build 2027     | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 10   | -   | -   | -   | -   | -   | 2.5 | -   | -         | -   | -   | -   | -   | 0.128 | -   | -   | -   | -   | -   | 0.019 | -   | - |
|              |                                  |          | Horizon - No Build 2033 | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Horizon - Build 2033    | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 15   | -   | -   | -   | -   | -   | 2.5 | -   | -         | -   | -   | -   | -   | 0.161 | -   | -   | -   | -   | -   | 0.019 | -   | - |
|              |                                  | PM       | Existing 2022           | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Phase 1-No Build 2023   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Phase 1- Build 2023     | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Phase 2-No Build 2025   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Phase 2- Build 2025     | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 2.5  | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | 0.032 | -   | -   | -   | -   | -   | 0.01  | -   | - |
|              |                                  |          | Phase 3-No Build 2027   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Phase 3- Build 2027     | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 25.7 | -   | -   | -   | -   | -   | 2.5 | -   | -         | -   | -   | -   | -   | 0.191 | -   | -   | -   | -   | -   | 0.042 | -   | - |
|              |                                  |          | Horizon - No Build 2033 | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -         | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   |   |
|              |                                  |          | Horizon - Build 2033    | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 22.5 | -   | -   | -   | -   | -   | 2.5 | -   | -         | -   | -   | -   | -   | 0.237 | -   | -   | -   | -   | -   | 0.047 | -   | - |

Table 14 – Intersection 5 Traffic Analysis Results

| NTERSECTION |                                  | PK<br>HR | SCENARIO                | INTERSECTION |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |     |     |      |     |     |     |     |     |     |     |     | V/C RATIO |     |     |       |     |     |     |     |     |       |     |     |
|-------------|----------------------------------|----------|-------------------------|--------------|-------|--------------|----|----|----|-----------------------------------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-------|-----|-----|-----|-----|-----|-------|-----|-----|
|             |                                  |          |                         | LOS          | DELAY | EB           | WB | NB | SB | EBL                               | EBT | EBR | WBL  | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | EBL       | EBT | EBR | WBL   | WBT | WBR | NBL | NBT | NBR | SBL   | SBT | SBR |
| 5           | Universe<br>Blvd &<br>Driveway 2 | AM       | Existing 2022           | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Phase 1-No Build 2023   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Phase 1- Build 2023     | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 5    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.073 | -   | -   | -   | -   | -   | 0.002 | -   | -   |
|             |                                  |          | Phase 2-No Build 2025   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Phase 2- Build 2025     | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 15   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.162 | -   | -   | -   | -   | -   | 0.007 | -   | -   |
|             |                                  |          | Phase 3-No Build 2027   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Phase 3- Build 2027     | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 15   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.176 | -   | -   | -   | -   | -   | 0.007 | -   | -   |
|             |                                  |          | Horizon - No Build 2033 | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Horizon - Build 2033    | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 20   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.225 | -   | -   | -   | -   | -   | 0.007 | -   | -   |
|             |                                  | PM       | Existing 2022           | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Phase 1-No Build 2023   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Phase 1- Build 2023     | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 5    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.055 | -   | -   | -   | -   | -   | 0.008 | -   | -   |
|             |                                  |          | Phase 2-No Build 2025   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Phase 2- Build 2025     | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 7.5  | -   | -   | -   | -   | -   | 2.5 | -   | -   | -         | -   | -   | 0.097 | -   | -   | -   | -   | -   | 0.02  | -   | -   |
|             |                                  |          | Phase 3-No Build 2027   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Phase 3- Build 2027     | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 10   | -   | -   | -   | -   | -   | 2.5 | -   | -   | -         | -   | -   | 0.116 | -   | -   | -   | -   | -   | 0.022 | -   | -   |
|             |                                  |          | Horizon - No Build 2033 | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -    | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                  |          | Horizon - Build 2033    | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 12.5 | -   | -   | -   | -   | -   | 2.5 | -   | -   | -         | -   | -   | 0.145 | -   | -   | -   | -   | -   | 0.024 | -   | -   |

Table 15 – Intersection 6 Traffic Analysis Results

| INTERSECTION |                                   | PK<br>HR | SCENARIO                | INTERSECTION |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |     |     |     |     |     |     |     |     |     |     |     | V/C RATIO |     |     |       |     |     |     |     |     |       |     |     |
|--------------|-----------------------------------|----------|-------------------------|--------------|-------|--------------|----|----|----|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-------|-----|-----|-----|-----|-----|-------|-----|-----|
|              |                                   |          |                         | LOS          | DELAY | EB           | WB | NB | SB | EBL                               | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | EBL       | EBT | EBR | WBL   | WBT | WBR | NBL | NBT | NBR | SBL   | SBT | SBR |
| 6            | Universe<br>Blvd &<br>Perezoso Rd | AM       | Existing 2022           | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 1-No Build 2023   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 1- Build 2023     | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 2-No Build 2025   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 2- Build 2025     | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 2.5 | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.024 | -   | -   | -   | -   | -   | 0.002 | -   | -   |
|              |                                   |          | Phase 3-No Build 2027   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 3- Build 2027     | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 2.5 | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.026 | -   | -   | -   | -   | -   | 0.002 | -   | -   |
|              |                                   |          | Horizon - No Build 2033 | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Horizon - Build 2033    | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 2.5 | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.033 | -   | -   | -   | -   | -   | 0.002 | -   | -   |
|              |                                   | PM       | Existing 2022           | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 1-No Build 2023   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 1- Build 2023     | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 2-No Build 2025   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 2- Build 2025     | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.01  | -   | -   | -   | -   | -   | 0.004 | -   | -   |
|              |                                   |          | Phase 3-No Build 2027   | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Phase 3- Build 2027     | -            | -     | -            | B  | -  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.011 | -   | -   | -   | -   | -   | 0.005 | -   | -   |
|              |                                   |          | Horizon - No Build 2033 | -            | -     | -            | A  | -  | -  | -                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | -     | -   | -   | -   | -   | -   | -     | -   | -   |
|              |                                   |          | Horizon - Build 2033    | -            | -     | -            | C  | -  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -   | -   | 0.014 | -   | -   | -   | -   | -   | 0.005 | -   | -   |

**Table 16** summarizes the intersection LOS, approach LOS, 95<sup>th</sup> percentile queue length, and volume to capacity (v/c) ratio for all traffic movements of the signalized Intersection 7. The results are presented for the Existing, Phase I, Phase II, Phase III, and Horizon year AM and PM peak hours of the No Build and Build scenarios. Based on the analysis results, Intersection 7 will only exceed the minimum LOS D standard in the Horizon 2033 AM peak hour for the No Build and Build scenarios. The 2033 Build scenario will increase the delay by almost 20 seconds when compared to the 2033 No Build conditions. To mitigate these impacts and accommodate the left/right turn 2033 volumes that exceed the City of Albuquerque DPM traffic volume threshold requiring left and right turn lanes, a 240-ft WB right turn auxiliary lane with a 150-ft to 300-ft reverse curve transition length, a 300-ft SB left turn auxiliary lane with a 150-ft to 300-ft reverse curve transition length, and signal optimization are recommended after Phase III is completed. This will improve the LOS to a C in the AM and PM peak hour as can be noted in **Table 16** under the 2033 Mitigation scenario. However, before any improvements are implemented, it is recommended that the intersection be evaluated again after the completion of Phase III to verify that the improvements are required. If Rosa Parks Rd is extended to Unser Blvd by the end of this phase, the amount of traffic accessing the development through Universe Blvd will be reduced given that traffic would be able to access the development through Rosa Parks Rd and Unser Blvd. This would decrease the development’s generated traffic at Intersection 7 and minimize the traffic impacts; therefore, only signal optimization (without the additional WB right turn and SB left turn auxiliary lane) would be recommended. As can be noted in **Table 16**, Intersection 7 is expected to maintain the same LOS and experience a minimal increase in delay in the Build 2033 conditions with the Rosa Parks Rd extension when compared to the No Build 2033 conditions. The extension of Rosa Parks Rd by the City or another development may be possible by 2027 given that the Rosa Parks Rd extension between Universe Blvd and Unser Blvd has been included in the MRMPO Long Range Roadway System Corridors (LRRS) Connections 2040 MTP projects and the project site is in an area that is rapidly growing and being developed.

Table 16 – Intersection 7 Traffic Analysis Results

| INTERSECTION |                                       | PK<br>HR                                        | SCENARIO                                          | INTERSEC-<br>TION |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |     |     |             |      |     |            |     |      |             |     | V/C RATIO |      |      |      |      |      |      |      |      |      |      |      |     |
|--------------|---------------------------------------|-------------------------------------------------|---------------------------------------------------|-------------------|-------|--------------|----|----|----|-----------------------------------|-----|-----|-------------|------|-----|------------|-----|------|-------------|-----|-----------|------|------|------|------|------|------|------|------|------|------|------|-----|
|              |                                       |                                                 |                                                   | LOS               | DELAY | EB           | WB | NB | SB | EBL<br>120'                       | EBT | EBR | WBL<br>130' | WBT  | WBR | NBL<br>80' | NBT | NBR  | SBL<br>100' | SBT | SBR       | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR |
| 7            | Universe<br>Blvd &<br>Rainbow<br>Blvd | A<br>M                                          | Existing 2022                                     | C                 | 28    | D            | D  | B  | B  | 4                                 | 168 | -   | 12          | 162  | -   | 33         | 63  | -    | 374         | 34  | -         | 0.02 | 0.64 | -    | 0.1  | 0.75 | -    | 0.2  | 0.22 | -    | 0.68 | 0.08 | -   |
|              |                                       |                                                 | Phase 1-No Build 2023                             | C                 | 29    | D            | C  | B  | B  | 5                                 | 186 | -   | 12          | 172  | -   | 35         | 67  | -    | #522        | 36  | -         | 0.04 | 0.67 | -    | 0.11 | 0.75 | -    | 0.26 | 0.31 | -    | 0.73 | 0.09 | -   |
|              |                                       |                                                 | Phase 1- Build 2023                               | C                 | 29.3  | D            | C  | C  | C  | 6                                 | 185 | -   | 12          | 173  | -   | 35         | 68  | -    | #623        | 38  | -         | 0.05 | 0.67 | -    | 0.11 | 0.76 | -    | 0.28 | 0.35 | -    | 0.76 | 0.09 | -   |
|              |                                       |                                                 | Phase 2-No Build 2025                             | C                 | 30    | D            | C  | C  | C  | 5                                 | 192 | -   | 12          | 178  | -   | 39         | 71  | -    | #677        | 41  | -         | 0.04 | 0.67 | -    | 0.11 | 0.76 | -    | 0.3  | 0.37 | -    | 0.81 | 0.1  | -   |
|              |                                       |                                                 | Phase 2- Build 2025                               | C                 | 31.4  | C            | C  | C  | C  | 7                                 | 188 | -   | 11          | 178  | -   | 40         | 75  | -    | #761        | 43  | -         | 0.06 | 0.66 | -    | 0.11 | 0.77 | -    | 0.3  | 0.38 | -    | 0.88 | 0.11 | -   |
|              |                                       |                                                 | Phase 3-No Build 2027                             | C                 | 31.7  | C            | C  | C  | C  | 5                                 | 196 | -   | 12          | 184  | -   | 42         | 78  | -    | #753        | 44  | -         | 0.04 | 0.68 | -    | 0.12 | 0.77 | -    | 0.32 | 0.4  | -    | 0.88 | 0.11 | -   |
|              |                                       |                                                 | Phase 3- Build 2027                               | D                 | 36.4  | C            | C  | C  | D  | 8                                 | 193 | -   | 12          | 187  | -   | 43         | 83  | -    | #841        | 48  | -         | 0.09 | 0.64 | -    | 0.11 | 0.8  | -    | 0.32 | 0.42 | -    | 0.98 | 0.13 | -   |
|              |                                       |                                                 | Horizon - No Build 2033                           | E                 | 59.4  | C            | C  | C  | F  | 5                                 | 236 | -   | 13          | 226  | -   | 50         | 95  | -    | #863        | 53  | -         | 0.04 | 0.73 | -    | 0.14 | 0.81 | -    | 0.37 | 0.47 | -    | 1.22 | 0.15 | -   |
|              |                                       |                                                 | Horizon - Build 2033                              | E                 | 78.2  | C            | C  | C  | F  | 8                                 | 236 | -   | 13          | 233  | -   | 50         | 101 | -    | #940        | 57  | -         | 0.09 | 0.68 | -    | 0.13 | 0.82 | -    | 0.37 | 0.5  | -    | 1.37 | 0.17 | -   |
|              |                                       |                                                 | 2033 Mitigation                                   | C                 | 24.2  | D            | C  | A  | B  | 10                                | 259 | -   | 15          | 204  | 54  | 36         | 24  | -    | 197         | 18  | -         | 0.08 | 0.85 |      | 0.16 | 0.76 | 0.45 | 0.24 | 0.24 | -    | 0.67 | 0.14 | -   |
|              |                                       | Horizon - Build 2033 w/ Rosa<br>Parks Extension | E                                                 | 60.4              | D     | E            | D  | E  | 14 | 403                               | -   | 24  | 410         | -    | 49  | 146        | -   | #936 | 49          | -   | 0.13      | 0.79 | -    | 0.21 | 0.95 | -    | 0.38 | 0.44 | -    | 1.07 | 0.12 | -    |     |
|              |                                       | P<br>M                                          | Existing 2022                                     | C                 | 21.4  | C            | C  | B  | B  | 4                                 | 85  | -   | 45          | 193  | -   | 10         | 55  | -    | 116         | 37  | -         | 0.02 | 0.51 | -    | 0.22 | 0.73 | -    | 0.02 | 0.13 | -    | 0.33 | 0.07 | -   |
|              |                                       |                                                 | Phase 1-No Build 2023                             | C                 | 22.2  | C            | C  | B  | B  | 5                                 | 98  | -   | 47          | 245  | -   | 10         | 59  | -    | 128         | 38  | -         | 0.04 | 0.5  | -    | 0.22 | 0.76 | -    | 0.03 | 0.15 | -    | 0.38 | 0.08 | -   |
|              |                                       |                                                 | Phase 1- Build 2023                               | C                 | 21.8  | C            | C  | B  | B  | 6                                 | 98  | -   | 47          | 251  | -   | 10         | 62  | -    | 136         | 39  | -         | 0.05 | 0.48 | -    | 0.21 | 0.75 | -    | 0.03 | 0.17 | -    | 0.41 | 0.09 | -   |
|              |                                       |                                                 | Phase 2-No Build 2025                             | C                 | 21.1  | C            | C  | B  | B  | 5                                 | 104 | -   | 48          | 269  | -   | 10         | 66  | -    | 136         | 40  | -         | 0.04 | 0.44 | -    | 0.21 | 0.72 | -    | 0.03 | 0.19 | -    | 0.44 | 0.1  | -   |
|              |                                       |                                                 | Phase 2- Build 2025                               | C                 | 21.4  | C            | C  | B  | B  | 7                                 | 104 | -   | 48          | 269  | -   | 10         | 71  | -    | 151         | 42  | -         | 0.06 | 0.45 | -    | 0.21 | 0.73 | -    | 0.03 | 0.21 | -    | 0.48 | 0.1  | -   |
|              |                                       |                                                 | Phase 3-No Build 2027                             | C                 | 21.1  | C            | C  | B  | B  | 5                                 | 110 | -   | 51          | #322 | -   | 11         | 70  | -    | 144         | 43  | -         | 0.03 | 0.44 | -    | 0.22 | 0.73 | -    | 0.04 | 0.22 | -    | 0.48 | 0.11 | -   |
|              |                                       |                                                 | Phase 3- Build 2027                               | C                 | 21.7  | C            | C  | C  | B  | 8                                 | 110 | -   | 51          | #355 | -   | 11         | 77  | -    | 167         | 45  | -         | 0.07 | 0.44 | -    | 0.22 | 0.77 | -    | 0.04 | 0.25 | -    | 0.54 | 0.12 | -   |
|              |                                       |                                                 | Horizon - No Build 2033                           | C                 | 25.4  | C            | C  | C  | C  | 5                                 | 131 | -   | 59          | #448 | -   | 12         | 86  | -    | 174         | 49  | -         | 0.04 | 0.53 | -    | 0.29 | 0.87 | -    | 0.05 | 0.29 | -    | 0.57 | 0.13 | -   |
|              |                                       |                                                 | Horizon - Build 2033                              | C                 | 27.1  | C            | C  | C  | C  | 8                                 | 131 | -   | 59          | #483 | -   | 12         | 93  | -    | 199         | 52  | -         | 0.07 | 0.53 | -    | 0.29 | 0.91 | -    | 0.05 | 0.32 | -    | 0.64 | 0.14 | -   |
|              |                                       |                                                 | 2033 Mitigation                                   | C                 | 20.4  | C            | C  | B  | B  | 8                                 | 122 | -   | 58          | #360 | 67  | 11         | 59  | -    | 72          | 46  | -         | 0.06 | 0.59 | -    | 0.33 | 0.78 | 0.53 | 0.04 | 0.21 | -    | 0.35 | 0.13 | -   |
|              |                                       |                                                 | Horizon - Build 2033 with Rosa<br>Parks Extension | C                 | 23.8  | C            | C  | B  | C  | 7                                 | 121 | -   | 58          | #433 | -   | 13         | 74  | -    | 195         | 56  | -         | 0.06 | 0.48 | -    | 0.29 | 0.84 | -    | 0.04 | 0.24 | -    | 0.67 | 0.15 | -   |

**Table 17** through **20** summarize the intersection LOS, approach LOS, 95<sup>th</sup> percentile queue length, and volume to capacity (v/c) ratio for all traffic movements of unsignalized Intersections 8 through 11. The results are presented for the Existing, Phase I, Phase II, Phase III, and Horizon year AM and PM peak hours of the No Build and Build scenarios. The three-way intersections are stop controlled in the NB or SB direction, and free flow in the EB and WB directions; therefore, Synchro only evaluates the NB approach and WB left-turn movement, or SB approach and EB left-turn movement. It can be noted that all scenarios evaluated meet the minimum acceptable LOS standard (LOS D or better); therefore, no recommendations are made for Intersections 8 through 11.

Table 17 – Intersection 8 Traffic Analysis Results

| INTERSECTION |                               | PK<br>HR | SCENARIO                | INTERSECTION |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |     |     |     |     |     |     |     |     |     |     |     | V/C RATIO |     |     |     |       |     |      |       |     |     |     |     |
|--------------|-------------------------------|----------|-------------------------|--------------|-------|--------------|----|----|----|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-----|-------|-----|------|-------|-----|-----|-----|-----|
|              |                               |          |                         | LOS          | DELAY | EB           | WB | NB | SB | EBL                               | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | EBL       | EBT | EBR | WBL | WBT   | WBR | NBL  | NBT   | NBR | SBL | SBT | SBR |
| 8            | Rosa Parks Rd<br>& Driveway 3 | AM       | Existing 2022           | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 1-No Build 2023   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 1- Build 2023     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 2-No Build 2025   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 2- Build 2025     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 3-No Build 2027   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 3- Build 2027     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 2.5 | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | 0.03 | -     | -   | -   | -   | -   |
|              |                               |          | Horizon - No Build 2033 | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Horizon - Build 2033    | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 2.5 | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | 0.03 | -     | -   | -   | -   | -   |
|              |                               | PM       | Existing 2022           | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 1-No Build 2023   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 1- Build 2023     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 2-No Build 2025   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 2- Build 2025     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 3-No Build 2027   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Phase 3- Build 2027     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 5   | -   | -   | -   | -   | -   | -         | -   | -   | -   | 0.015 | -   | -    | 0.058 | -   | -   | -   | -   |
|              |                               |          | Horizon - No Build 2033 | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -     | -   | -    | -     | -   | -   | -   |     |
|              |                               |          | Horizon - Build 2033    | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 5   | -   | -   | -   | -   | -   | -         | -   | -   | -   | 0.015 | -   | -    | 0.058 | -   | -   | -   | -   |



Table 18 – Intersection 9 Traffic Analysis Results

| ERSECTION |                            | PK<br>HR | SCENARIO                | INTERSECTION |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |     |     |     |     |     |     |     |     |     |     |     | V/C RATIO |     |     |     |     |     |       |     |     |     |     |     |
|-----------|----------------------------|----------|-------------------------|--------------|-------|--------------|----|----|----|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|
|           |                            |          |                         | LOS          | DELAY | EB           | WB | NB | SB | EBL                               | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | EBL       | EBT | EBR | WBL | WBT | WBR | NBL   | NBT | NBR | SBL | SBT | SBR |
| 9         | Rosa Parks Rd & Driveway 4 | AM       | Existing 2022           | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Phase 1-No Build 2023   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Phase 1- Build 2023     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Phase 2-No Build 2025   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Phase 2- Build 2025     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 2.5 | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.017 | -   | -   | -   | -   | -   |
|           |                            |          | Phase 3-No Build 2027   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Phase 3- Build 2027     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 2.5 | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.017 | -   | -   | -   | -   | -   |
|           |                            |          | Horizon - No Build 2033 | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Horizon - Build 2033    | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 2.5 | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.017 | -   | -   | -   | -   | -   |
|           |                            | PM       | Existing 2022           | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Phase 1-No Build 2023   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Phase 1- Build 2023     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.012 | -   | -   | -   | -   | -   |
|           |                            |          | Phase 2-No Build 2025   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Phase 2- Build 2025     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.012 | -   | -   | -   | -   | -   |
|           |                            |          | Phase 3-No Build 2027   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Phase 3- Build 2027     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.012 | -   | -   | -   | -   | -   |
|           |                            |          | Horizon - No Build 2033 | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   | -   |
|           |                            |          | Horizon - Build 2033    | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.012 | -   | -   | -   | -   | -   |

Table 19 – Intersection 10 Traffic Analysis Results

| INTERSECTION |                                  | PK<br>HR | SCENARIO                | INTERSECTION |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |     |     |     |     |     |     |     |     |     |     |     | V/C RATIO |     |     |     |     |     |       |     |     |     |     |     |
|--------------|----------------------------------|----------|-------------------------|--------------|-------|--------------|----|----|----|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|
|              |                                  |          |                         | LOS          | DELAY | EB           | WB | NB | SB | EBL                               | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | EBL       | EBT | EBR | WBL | WBT | WBR | NBL   | NBT | NBR | SBL | SBT | SBR |
| 10           | Rosa Parks<br>Rd &<br>Driveway 5 | AM       | Existing 2022           | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Phase 1-No Build 2023   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Phase 1- Build 2023     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Phase 2-No Build 2025   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Phase 2- Build 2025     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.016 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 3-No Build 2027   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Phase 3- Build 2027     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.016 | -   | -   | -   | -   | -   |
|              |                                  |          | Horizon - No Build 2033 | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Horizon - Build 2033    | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.016 | -   | -   | -   | -   | -   |
|              |                                  | PM       | Existing 2022           | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Phase 1-No Build 2023   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Phase 1- Build 2023     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.011 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 2-No Build 2025   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Phase 2- Build 2025     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.011 | -   | -   | -   | -   | -   |
|              |                                  |          | Phase 3-No Build 2027   | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Phase 3- Build 2027     | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.011 | -   | -   | -   | -   | -   |
|              |                                  |          | Horizon - No Build 2033 | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | -     | -   | -   | -   | -   |     |
|              |                                  |          | Horizon - Build 2033    | -            | -     | -            | -  | A  | -  | -                                 | -   | -   | 0   | -   | -   | 0   | -   | -   | -   | -   | -   | -         | -   | -   | -   | -   | -   | 0.011 | -   | -   | -   | -   | -   |



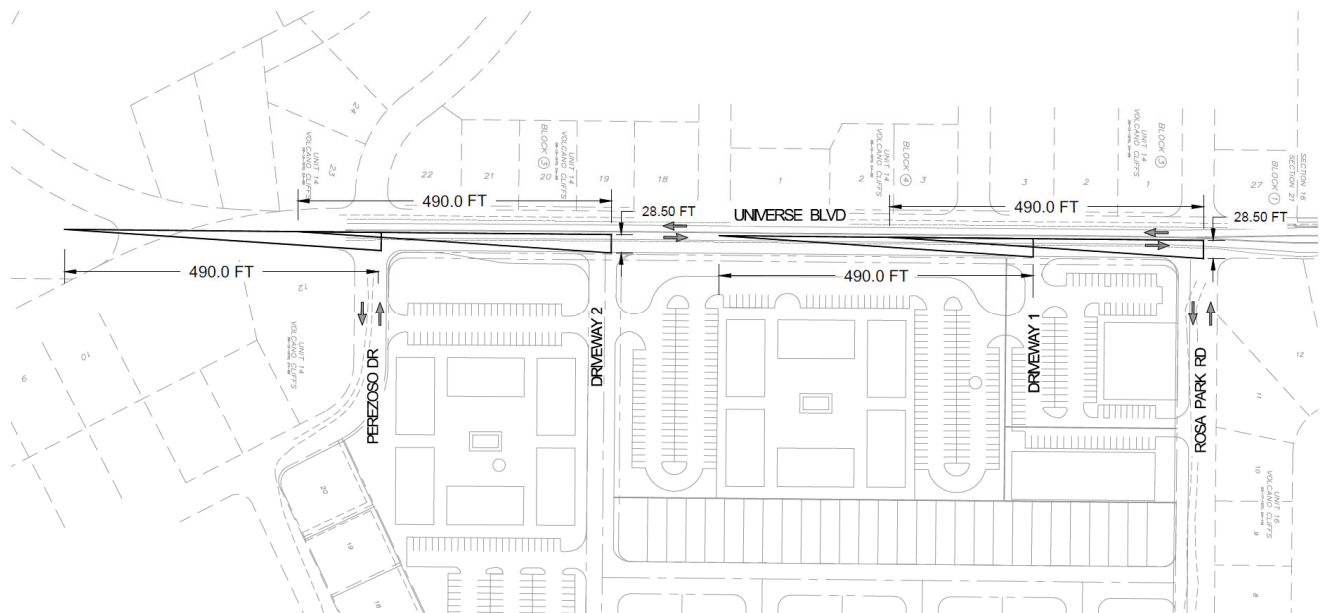
Table 20 – Intersection 11 Traffic Analysis Results

| NTERSECTION |                                | PK<br>HR | SCENARIO                | INTERSECTION |       | APPROACH LOS |    |    |    | 95 <sup>th</sup> PERCENTILE QUEUE |     |     |     |     |     |     |     |     |     |     |     | V/C RATIO |       |     |     |     |     |     |     |     |       |     |     |
|-------------|--------------------------------|----------|-------------------------|--------------|-------|--------------|----|----|----|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-------|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|
|             |                                |          |                         | LOS          | DELAY | EB           | WB | NB | SB | EBL                               | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | EBL       | EBT   | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL   | SBT | SBR |
|             |                                |          |                         |              |       |              |    |    |    |                                   |     |     |     |     |     |     |     |     |     |     |     |           |       |     |     |     |     |     |     |     |       |     |     |
| 11          | Perezoso Dr<br>& Driveway<br>6 | AM       | Existing 2022           | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 1-No Build 2023   | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 1- Build 2023     | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 2-No Build 2025   | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 2- Build 2025     | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | 0.009 | -   | -   |
|             |                                |          | Phase 3-No Build 2027   | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 3- Build 2027     | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | 0.002     | -     | -   | -   | -   | -   | -   | -   | -   | 0.009 | -   | -   |
|             |                                |          | Horizon - No Build 2033 | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Horizon - Build 2033    | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | 0.002     | -     | -   | -   | -   | -   | -   | -   | -   | 0.009 | -   | -   |
|             |                                | PM       | Existing 2022           | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 1-No Build 2023   | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 1- Build 2023     | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 2-No Build 2025   | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 2- Build 2025     | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | 0.004 | -   | -   |
|             |                                |          | Phase 3-No Build 2027   | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Phase 3- Build 2027     | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | 0   | -   | -   | 0.005     | -     | -   | -   | -   | -   | -   | -   | -   | 0.004 | -   | -   |
|             |                                |          | Horizon - No Build 2033 | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | -     | -   | -   | -   | -   | -   | -   | -   | -     | -   | -   |
|             |                                |          | Horizon - Build 2033    | -            | -     | -            | -  | -  | A  | 0                                 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -         | 0.005 | -   | -   | -   | -   | -   | -   | -   | 0.004 | -   | -   |

## INTERSECTION SIGHT DISTANCE

The ability of drivers to safely maneuver turns from the proposed development to Universe Blvd was analyzed. Areas near the intersection should be clear of obstructions that might block a driver's view of potentially conflicting vehicles. These areas are known as clear sight triangles. The sight triangle leg dimensions depend on the design speeds of the intersecting roadways and the type of traffic control used at the intersection.

The sight distance was evaluated for the minor roads intersecting Universe Blvd (Rosa Parks Rd, Driveway 1, Driveway 2, and Perezoso Dr). AASHTO's *A Policy on Geometric Design of Highways and Streets, 2018 7<sup>th</sup> Edition* methodology was followed in the sight distance evaluation. The sight distance is affected by the type of stop control and speed along the major roadway (Universe Blvd). For the intersections evaluated, the control type can be classified as a Case B – "Intersection with stop control on the minor road". The existing speed along the major road, Universe Blvd, is 35 miles per hour (mph). In the case for right turns from a minor road to a major road, the departure sight triangle distance for traffic approaching from the left is 490 ft for trucks and passenger cars. In the case for left turns from a minor road to a major road, the departure sight triangle distance for traffic approaching from the right is 440 ft. **Figure 35** shows the sight distance triangles for right turns at all four intersections. **Figure 36** shows the sight distance triangles for left turns at all four intersections. The sight triangles are also presented in **Appendix Q**. **Figure 37** shows the street view from the proposed intersections for vehicles turning left and right. Currently, from the point of departure at the evaluated intersections, there are no obstructions that might block a driver's view of approaching vehicles. It is recommended that a driver's view be considered when making improvements to Universe Blvd. No obstructions should be placed within the driver's sight distance.



**Figure 35 – Sight Distance Triangles for Right Turns at Proposed Intersections**

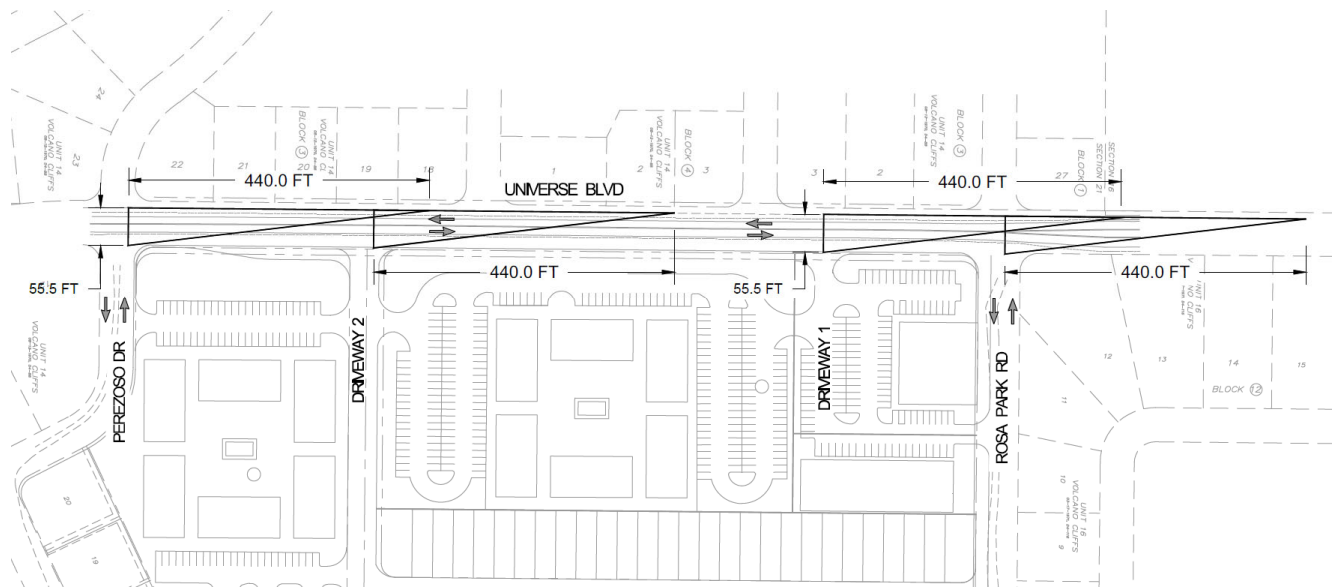


Figure 36 – Sight Distance Triangles for Left Turns at Proposed Intersections



Rosa Parks Rd North View (Left Turn View)



Rosa Parks Rd South View (Right Turn View)



Driveway 1 North View (Left Turn View)



Driveway 1 South View (Right Turn View)



Driveway 2 North View (Left Turn View)



Driveway 2 South View (Right Turn View)



Perezoso Dr North View (Left Turn View)



Perezoso Dr South View (Right Turn View)

Figure 37 –Proposed Intersection Street View Obstruction Analysis

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Based on the results of the traffic analysis, it was concluded that the development will not adversely impact the intersections in the Phase I (2023), Phase II (2025), and Phase III (2027) scenarios. All intersections perform at a LOS D or better in 2027 for all scenarios, except for:

- Intersection 1 (Universe Blvd & Paseo del Norte Blvd) – The intersection is expected to deteriorate to a LOS E and F during the 2025 AM and PM peak hour, respectively. However, this deterioration in LOS is expected to occur even without the proposed development, which only increases the delay by less than one second during both peak hours. It was also noted that the EB and SB left-turns and NB right-turn auxiliary lane storage lengths are exceeded in the No Build conditions. The City may consider increasing the storage length for these movements to accommodate the turning traffic. Intersection 1 may be improved in a future phase of the City's Paseo del Norte project; however, the intersection improvements and the timeline for their implementation have not been defined by the City at the moment.

By the Horizon 2033 year, all intersections are still expected to perform at a LOS D or better except for:

- Intersection 1 (Universe Blvd & Paseo del Norte Blvd) – The intersection is expected to deteriorate to a LOS F by 2033 during both peak hours. However, this deterioration in LOS is expected to occur even without the proposed development, which only increases the delay by less than one second during both peak hours.
- Intersection 2 (Universe Blvd and School Driveway) – A LOS E is expected during the 2033 AM Build peak hour for 1-stage EB left turns. However, the proposed cross section of Universe Blvd will include a median, which will allow a 2-staged left turn movement for the EB approach. This will improve the LOS to a C or better during both peak hours.
- Intersection 7 (Universe Blvd & Rainbow Blvd intersection) – The intersection is expected to deteriorate to a LOS E in the 2033 AM No Build and Build peak hour. However, the proposed development will increase the delay by almost 20 seconds when compared to the 2033 No Build conditions. It can also be noted that the Existing 2022 queue (without the development) exceeds the SB left-turn storage. The City may consider modifying the lane configuration for the SB movement to accommodate the high SB left-turn volumes.

Based on the traffic analysis results, it can be concluded that the Universe View development will adversely impact Intersection 7.

It was also concluded that the LOS and delay at Intersection 3 (Universe Blvd & Rosa Parks Rd) is not adversely impacted; however, the 2033 traffic volumes for the SB left turn movement are expected to exceed the traffic volume threshold requiring a left turn lane.

Also, from the sight distance analysis performed, it can be concluded that there will be no sight distance issues at the proposed Rosa Parks Rd and Perezoso Dr intersections with Universe Blvd, and the two driveway access points along Universe Blvd.

**Recommendations**

To mitigate the traffic impacts at Intersection 7 in year 2033, a WB right-turn auxiliary lane (240-ft storage length with a 150-ft to 300-ft reverse curve transition), an additional SB left-turn auxiliary lane (300-ft storage length with a 150-ft to 300-ft storage length), and signal optimization are recommended after Phase III is completed. The Universe View Subdivision is expected to increase 2033 traffic by 10 percent at Intersection 7; therefore, the developer is responsible for up to 10 percent of the construction cost of the proposed mitigations at this intersection. However, before any improvements are implemented, it is recommended that the intersection be evaluated again at the completion of Phase III to verify that the improvements are required. If Rosa Parks Rd is extended to Unser Blvd by the end of this phase, the amount of traffic accessing the development through Universe Blvd will be reduced given that traffic would be able to access the development through Rosa Parks Rd and Unser Blvd. This would decrease the development's generated traffic at Intersection 7 and minimize the traffic impacts; therefore, only signal optimization (without the additional WB right turn and SB left turn auxiliary lanes) would be recommended.

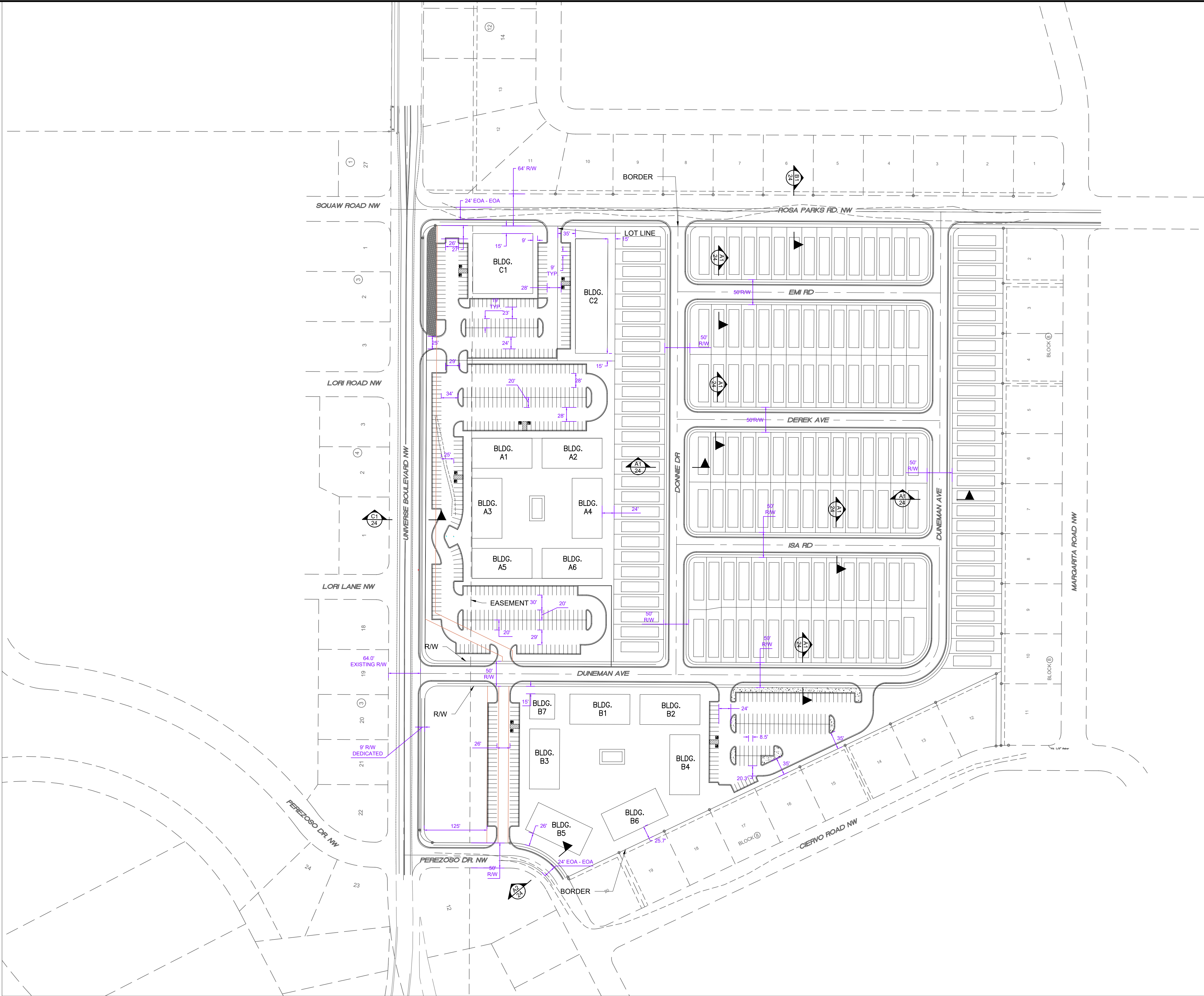
A SB left-turn lane (240-ft storage length with 150-ft to 300-ft reverse curve transition length) for Intersection 3 (Universe Blvd and Rosa Rd) would also be recommended to comply with the City of Albuquerque DPM requirements for left turn volumes exceeding turn lane volume thresholds.

# **APPENDIX A1**

## **Site Plan**



Plotted: 10/13/2022 11:37:50 AM, By: dhuerta, Donnie  
H:\proj\R314494.01 - Volcano Cliffs Subdivision U17 Bldg L110 CADD & BIM\10.1 AutoCAD\Sheet Set\R314494 - SITE  
PLAN.dwg  
Last Saved: 10/13/2022 11:37:27 AM, dhuerta



| SITE DATA                                                                         |  |
|-----------------------------------------------------------------------------------|--|
| SITE ADDRESS: UNIVERSE BLVD AND ROSA PARKS RD NW, ALBUQUERQUE, NM                 |  |
| LEGAL DESCRIPTION: LOT 1, BLOCK 8, VOLCANO CLIFFS SUBDIVISION                     |  |
| ACRES: 30.13                                                                      |  |
| ZONE ATLAS: D-10                                                                  |  |
| ZONING SUMMARY: (MIXED USE - LOW INTENSITY ZONE DISTRICT)                         |  |
| CONSTRUCTION TYPE: V-A FOR APARTMENTS & COMMERCIAL                                |  |
| V-B FOR TOWNHOME LOTS                                                             |  |
| BUILDING HEIGHT: COMMERCIAL 20'-0" APARTMENTS 32'-0"                              |  |
| SPRINKLERED: APARTMENTS & COMMERCIAL FULLY SPRINKLERED; TOWNHOMES NOT SPRINKLERED |  |

| BUILDING DATA                        |                                      |
|--------------------------------------|--------------------------------------|
| BUILDING TYPE - A:                   |                                      |
| FIRST LEVEL                          | 7,200 GSF = APARTMENTS               |
| SECOND LEVEL                         | 7,200 GSF = APARTMENTS               |
| BLDG A1-A6                           | 86,400 GSF                           |
| TOTAL                                | 86,400 GSF                           |
| CONSTRUCTION TYPE: V-A               |                                      |
| BUILDING TYPE - B:                   |                                      |
| FIRST LEVEL                          | 7,200 GSF = APARTMENTS               |
| SECOND LEVEL                         | 7,200 GSF = APARTMENTS               |
| BLDG B1-B6                           | 86,400 GSF                           |
| TOTAL                                | 86,400 GSF                           |
| CONSTRUCTION TYPE: V-A               |                                      |
| BUILDING TYPE - B7:                  |                                      |
| FIRST LEVEL                          | 2,500 GSF = (GYM/OFFICE)             |
| SECOND LEVEL                         | 2,500 GSF = (APARTMENTS)             |
| TOTAL                                | 5,000 GSF                            |
| BUILDING TYPE - C1:                  |                                      |
| FIRST LEVEL                          | 14,400 GSF = PHARMACY w/o DRIVE THRU |
| SECOND LEVEL                         | 14,400 GSF                           |
| TOTAL                                | 14,400 GSF                           |
| CONSTRUCTION TYPE: V-A               |                                      |
| BUILDING TYPE - C2:                  |                                      |
| FIRST LEVEL                          | 14,728 GSF = (SHOPPING CENTER)       |
| SECOND LEVEL                         | 14,728 GSF                           |
| TOTAL                                | 14,728 GSF                           |
| CONSTRUCTION TYPE: V-A               |                                      |
| TOTAL BUILDING AREA: 203,325 GSF     |                                      |
| LARGEST SF SPACE: BLDG C2 16,725 GSF |                                      |
| BUILDING TYPE - TOWNHOMES:           |                                      |
| LOT SIZE                             | 3,000 SF                             |
| NUMBER OF LOTS                       | 162                                  |
| CONSTRUCTION TYPE:                   | V-B                                  |

| AS BUILT INFORMATION   |      |
|------------------------|------|
| CONTRACTOR -           | DATE |
| WORK                   | DATE |
| STAKE                  | DATE |
| ACCEPTANCE BY          | DATE |
| FIELD                  | DATE |
| REVISIONS              | DATE |
| CORRECTED BY           | DATE |
| MICRO-FILM INFORMATION |      |
| RECORDED BY            | DATE |
| NO                     | DATE |

| BENCH MARKS                                                |      |
|------------------------------------------------------------|------|
| FOUND MONUMENT 7' K10"                                     | DATE |
| STANDARD 3 1/4" ALUMINUM DISC                              | DATE |
| NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE NAD 1983) | DATE |
| N=1,483,739.165                                            | DATE |
| E=1,488,862.651                                            | DATE |
| PUBLISHED EL=5097.854 (NAVD 1988)                          |      |
| GROUND TO GRID FACTOR=0.99963006                           |      |
| MAPPING ANGLE=0°16'18.14"                                  |      |

| SURVEY INFORMATION |      |
|--------------------|------|
| FIELD NOTES        | DATE |
| BY                 | DATE |
| NO                 | DATE |

| PRELIMINARY                                                                                                |  |
|------------------------------------------------------------------------------------------------------------|--|
| THIS DOCUMENT IS FOR INFORMATION ONLY AND IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. |  |
| AUTHORITY OF DONALD M. DUNE MAN                                                                            |  |
| LIC. NO. 17816                                                                                             |  |
| RELEASE DATE - March 30, 2022                                                                              |  |
| IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.                                        |  |

| REVISIONS        |                    |
|------------------|--------------------|
| NO.              | DATE               |
| REMARKS          | DATE               |
| DESIGN           | DATE               |
| DESIGNED BY: DMD | DATE: 3/30/2022    |
| DRAWN BY: MTR    | DATE: 3/30/2022    |
| DWG NAME:        | PROJ. # R314494.01 |
| CHECKED BY: DMD  | DATE: 3/30/2022    |

Designed By:

**HUITT-ZOLLARS**

Huitt-Zollars, Inc. Albuquerque  
6501 Americas Pkwy NE, Suite 550  
Albuquerque, New Mexico 87110  
Phone (505) 883-8114 Fax (505) 883-6022

**CITY OF ALBUQUERQUE**

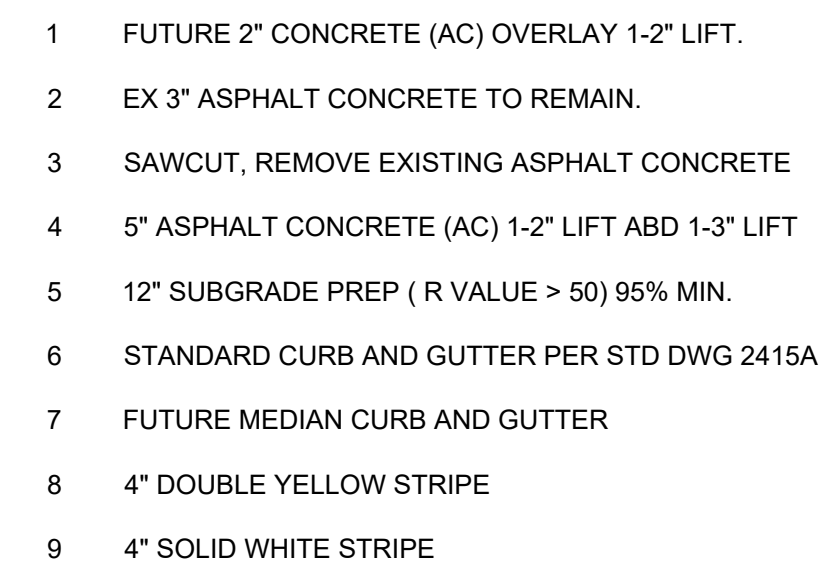
DEPARTMENT OF MUNICIPAL DEVELOPMENT  
ENGINEERING DIVISION

| TITLE: UNIVERSE VIEW SUBDIVISION SITE PLAN |                     |
|--------------------------------------------|---------------------|
| Design Review Committee                    | City Engineer       |
| Mo./Day/Yr.                                |                     |
| Mo./Day/Yr.                                |                     |
| Mo./Day/Yr.                                |                     |
| Mo./Day/Yr.                                |                     |
| Mo./Day/Yr.                                |                     |
| Mo./Day/Yr.                                |                     |
| City Project No.                           | Zone Map No. D - 10 |
| Sheet                                      | Of 35               |



# **APPENDIX A2**

## **Typical Sections**



Plan view of a proposed 64' wide bus/bike lane (B/B) with a 38' EOA. The diagram shows a cross-section of the road with various lanes and buffers. From left to right: 10' PUE, 6' SDWK, 6' BUFFER, 2' C&G, 6' BIKE LANE, 11' DRIVE LANE, 1' DRIVE LANE, 2' C&G, 6' BIKE LANE, 6' BUFFER, 6' SDWK, 10' PUE. The total width is 64' B/B. The EOA is 38'. A future road is indicated above the diagram. Callouts 4, 5, and 6 point to specific features in the cross-section below the plan view.

Figure 1: Typical cross-section of a two-lane highway with a 30' F/F. The diagram shows a cross-section with a 30-foot finished floor (F/F) width. The total right-of-way (ROW) is 50 feet. The cross-section includes a 10-foot paved shoulder (PUE), a 5-foot shoulder (SDWK), a 5-foot buffer, a 6-foot parking area, a 9-foot drive lane, and a 9-foot drive lane. The cross-section also shows a 2% grade, a 4-foot curb, a 5-foot shoulder, and a 6-foot parking area. The cross-section is labeled with dimensions and components.

Plan view of a proposed 30' F/F intersection. The diagram shows a 30' wide intersection with a 24' EOA - EOA (Effective Offset Area - Effective Offset Area) and two 12' drive lanes. Key dimensions and setbacks include:

- ROW (Right of Way) to ROW: 50'
- Future street offset: 25' (each side)
- Intersection width: 30' F/F
- EOA - EOA: 24'
- Drive lanes: 12' each
- Setbacks from ROW: 5' (each side)
- Setbacks from PUE (Proposed Urban Edge): 10' - 5' - 11' (each side)
- Setbacks from SDWK (Side Drive Way): 5' (each side)
- Setbacks from PARKING DRIVE LANE: 6' (each side)
- Setbacks from DRIVE LANE PARKING: 9' (each side)
- Setbacks from BUFFER: 5' (each side)
- Setbacks from PUE: 10' (each side)
- Setbacks from ROW: 5' (each side)
- Setbacks from ROW: 10' - 5' - 11' (each side)
- Setbacks from ROW: 10' (each side)

Callouts 4, 5, 6, and 8 indicate specific areas of interest or construction details.

Designed By:

**HUITT-ZOLLARS**

Huitt-Zollars, Inc. Albuquerque  
6501 Americas Pkwy NE, Suite 550  
Albuquerque, New Mexico 87110  
Phone (505) 883-8114 Fax (505) 883-5022



**CITY OF ALBUQUERQUE**  
**DEPARTMENT OF MUNICIPAL DEVELOPMENT**  
**ENGINEERING DIVISION**

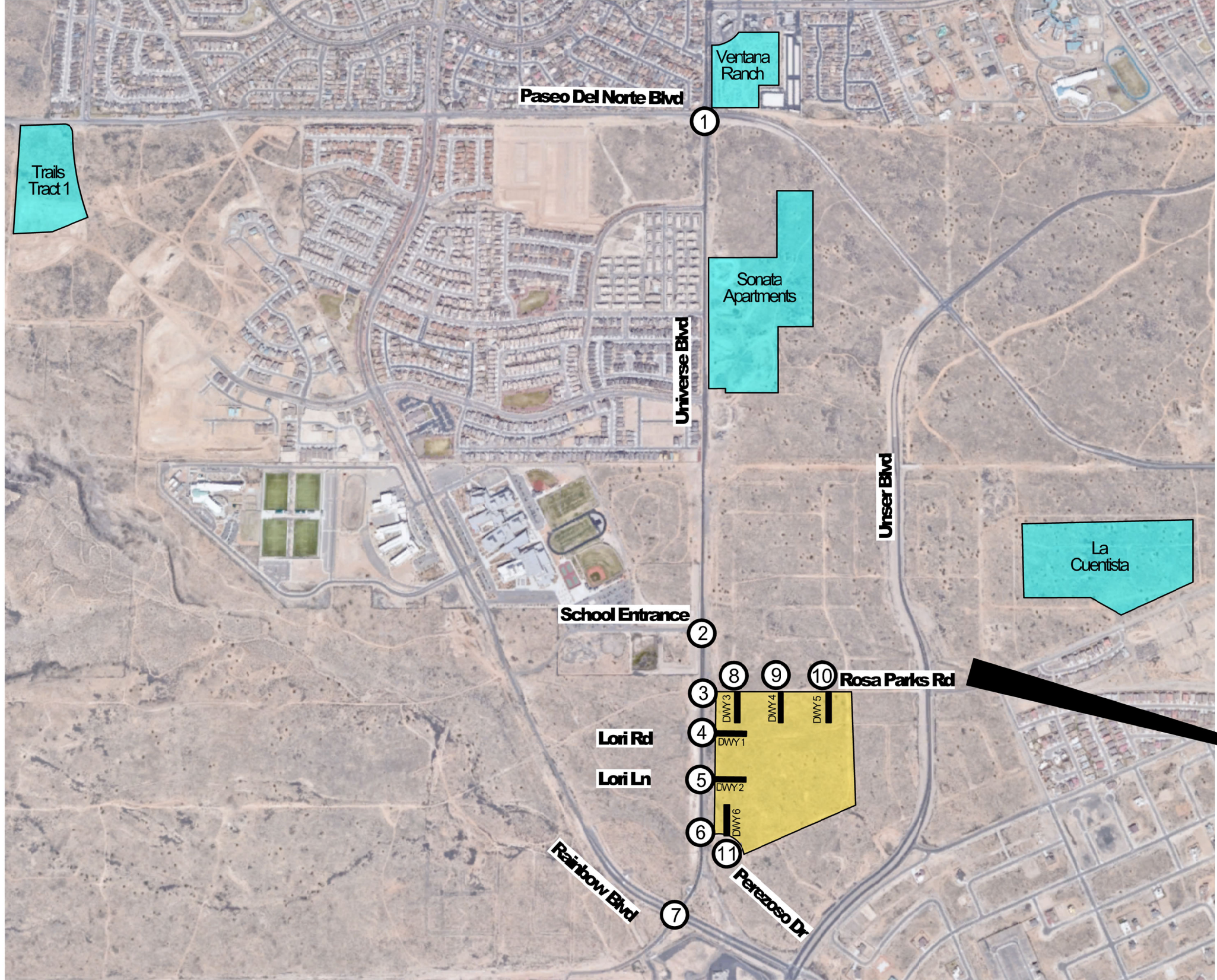
|        |                                               |
|--------|-----------------------------------------------|
| TITLE: | UNIVERSE VIEW SUBDIVISION<br>TYPICAL SECTIONS |
|--------|-----------------------------------------------|

|                         |                     |             |             |             |
|-------------------------|---------------------|-------------|-------------|-------------|
| Design Review Committee | City Engineer       | Last Update | Mo./Day/Yr. | Mo./Day/Yr. |
|                         |                     |             |             |             |
|                         |                     |             |             |             |
|                         |                     |             |             |             |
|                         |                     |             |             |             |
|                         |                     |             |             |             |
| City Project No.        | Zone Map No. D - 10 | Sheet 24    | Of 35       |             |

# **APPENDIX B**

## **Figures**





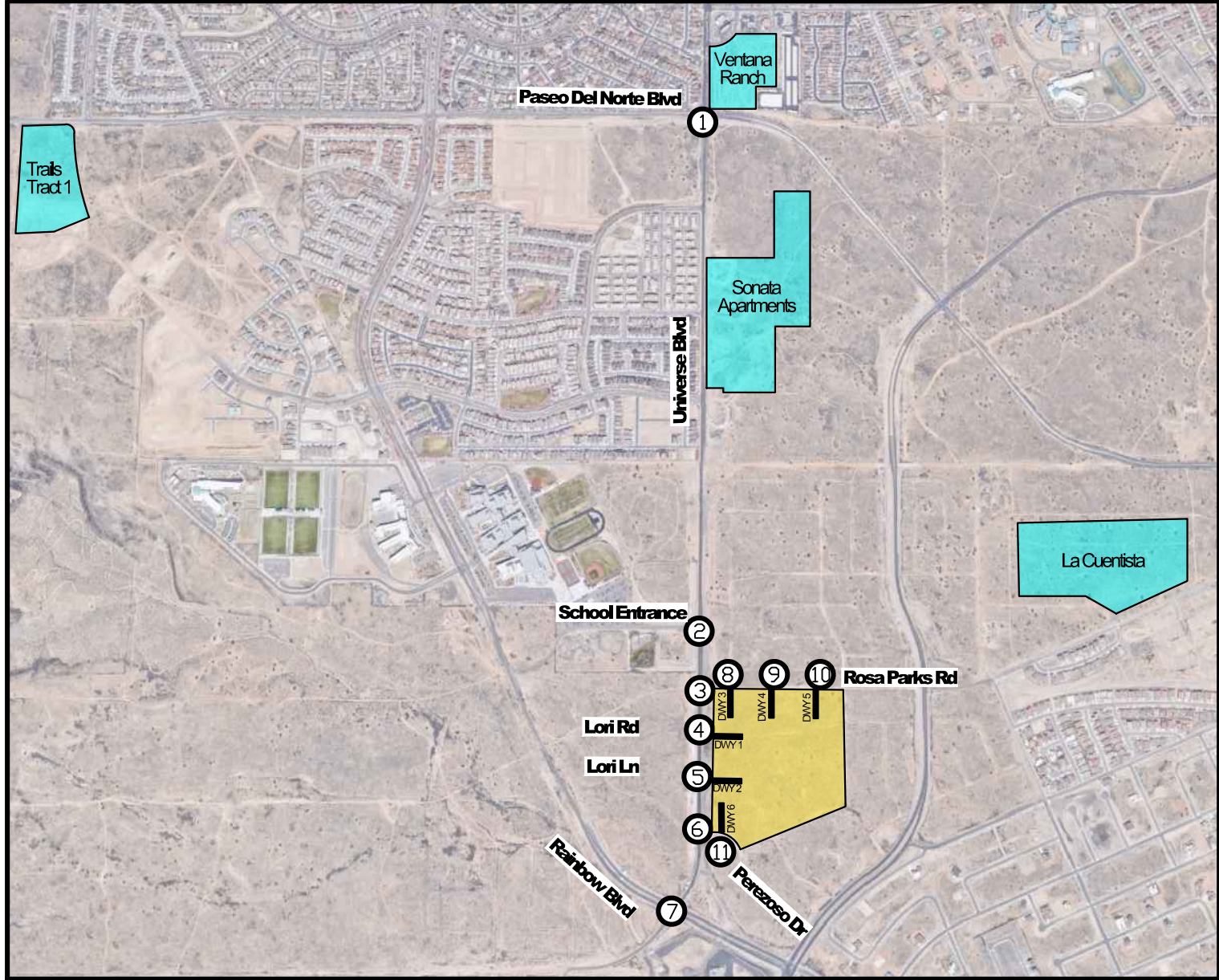
**Legend**

- # INTERSECTION NUMBER
- FUTURE DEVELOPMENTS
- VOLCANO CLIFFS SUBDIVISION
- DWY DRIVEWAY



**Universe View Subdivision**  
**Project Location Exhibit**



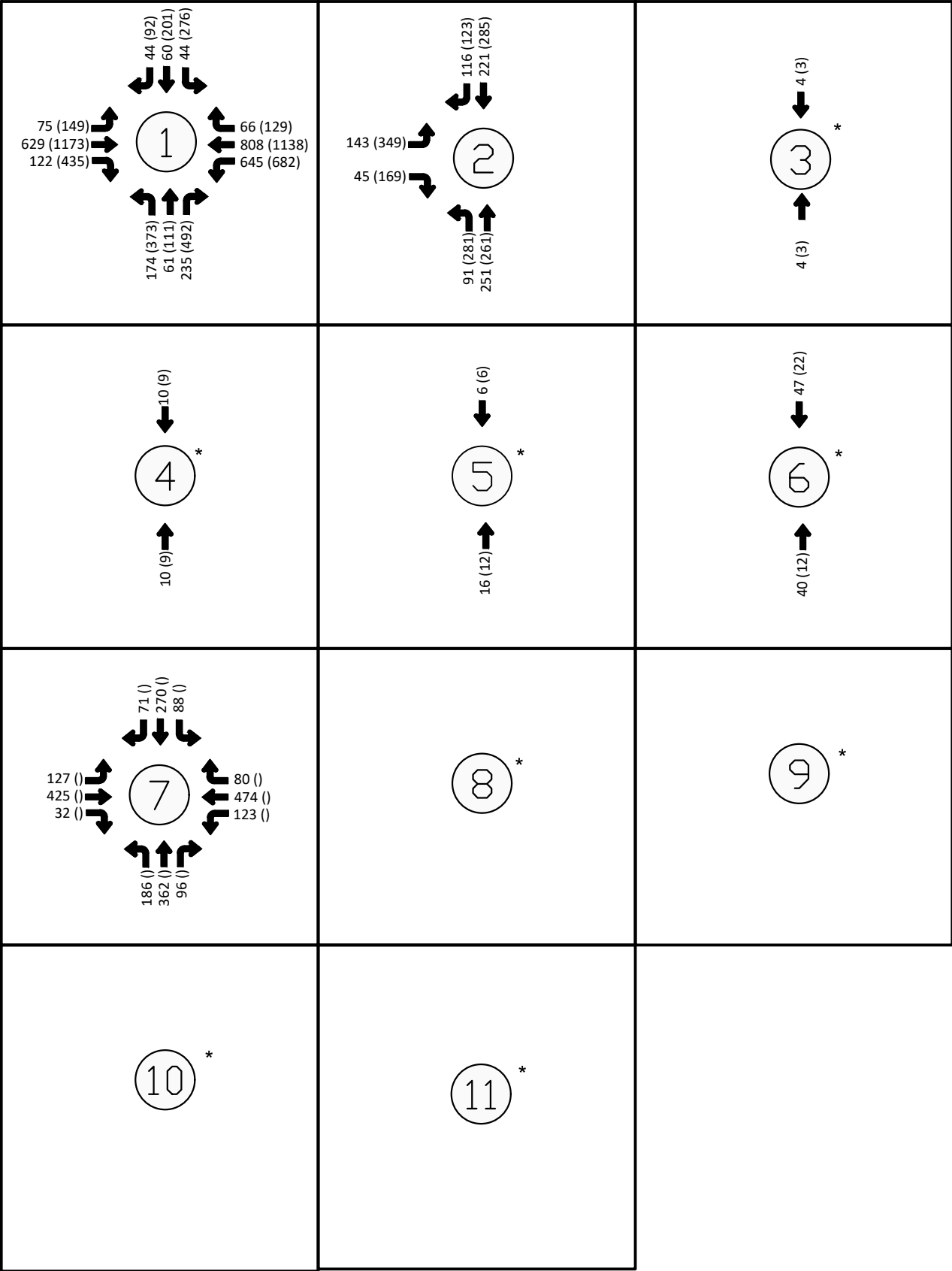


**Legend**

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- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



NOT TO SCALE



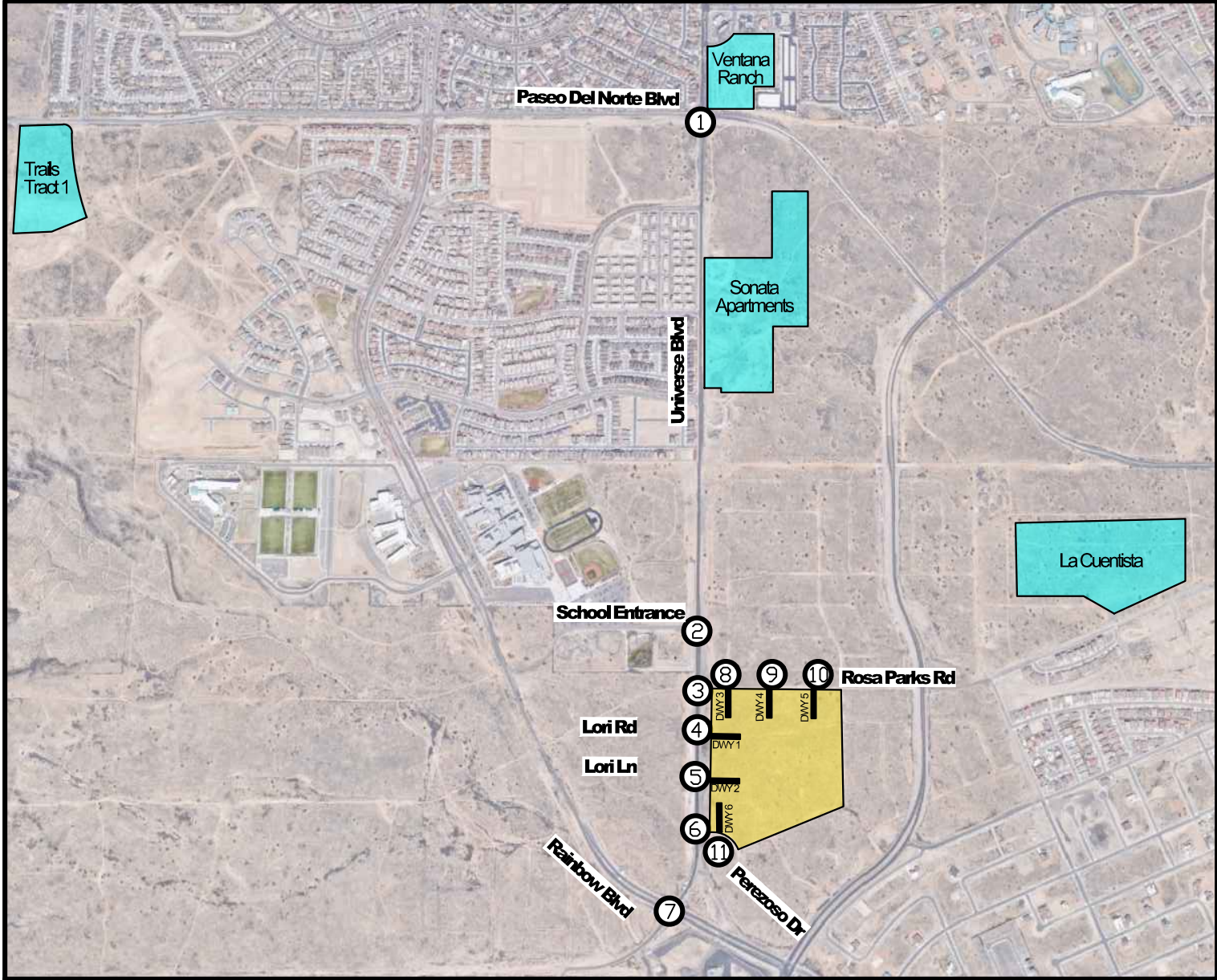
\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS

**Universe View Subdivision**  
**2022 Existing**  
**Turning Movement Counts**

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**Figure**  
**Number**  
**2**



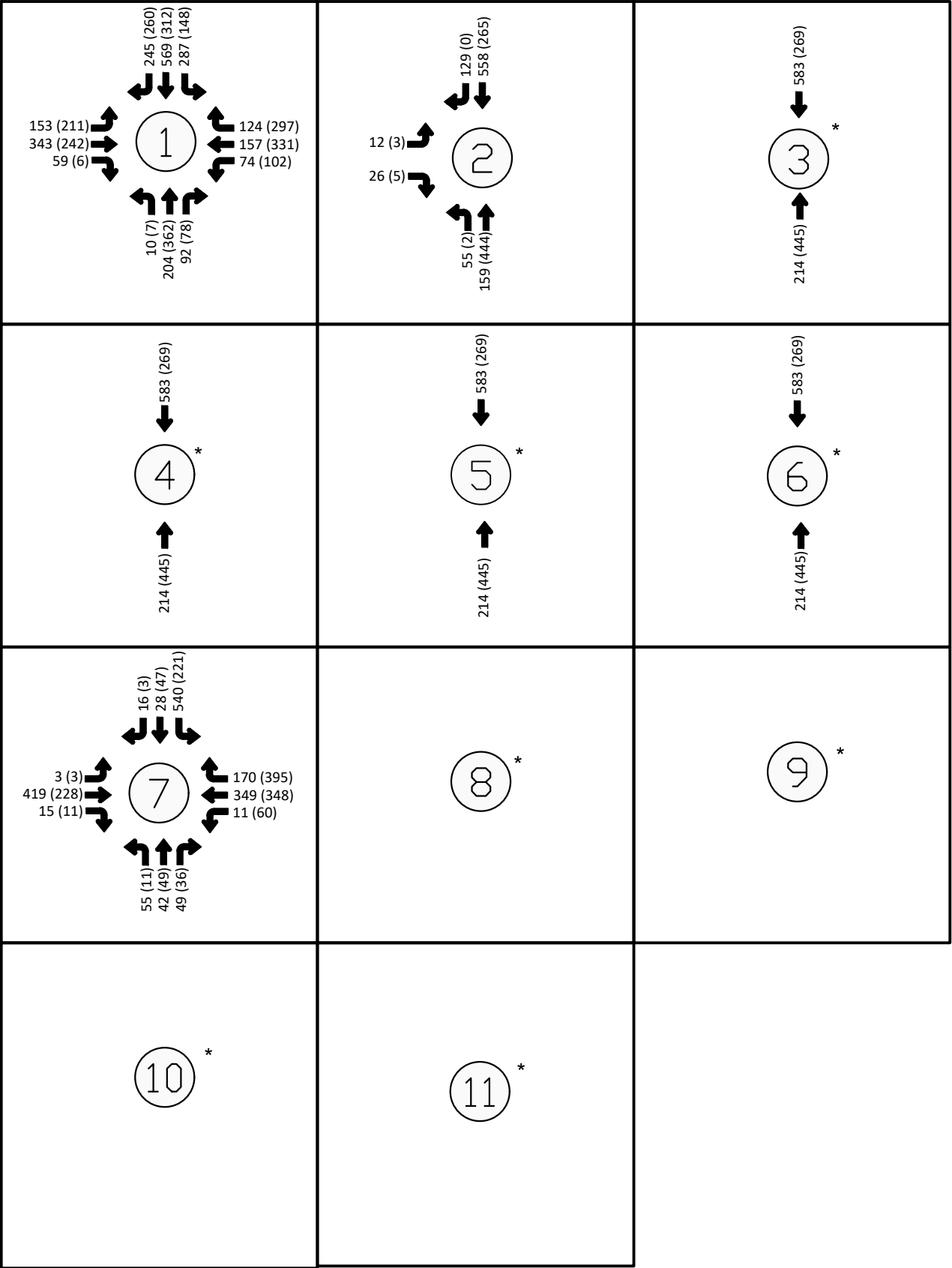


**Legend**

- # INTERSECTION NUMBER
- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



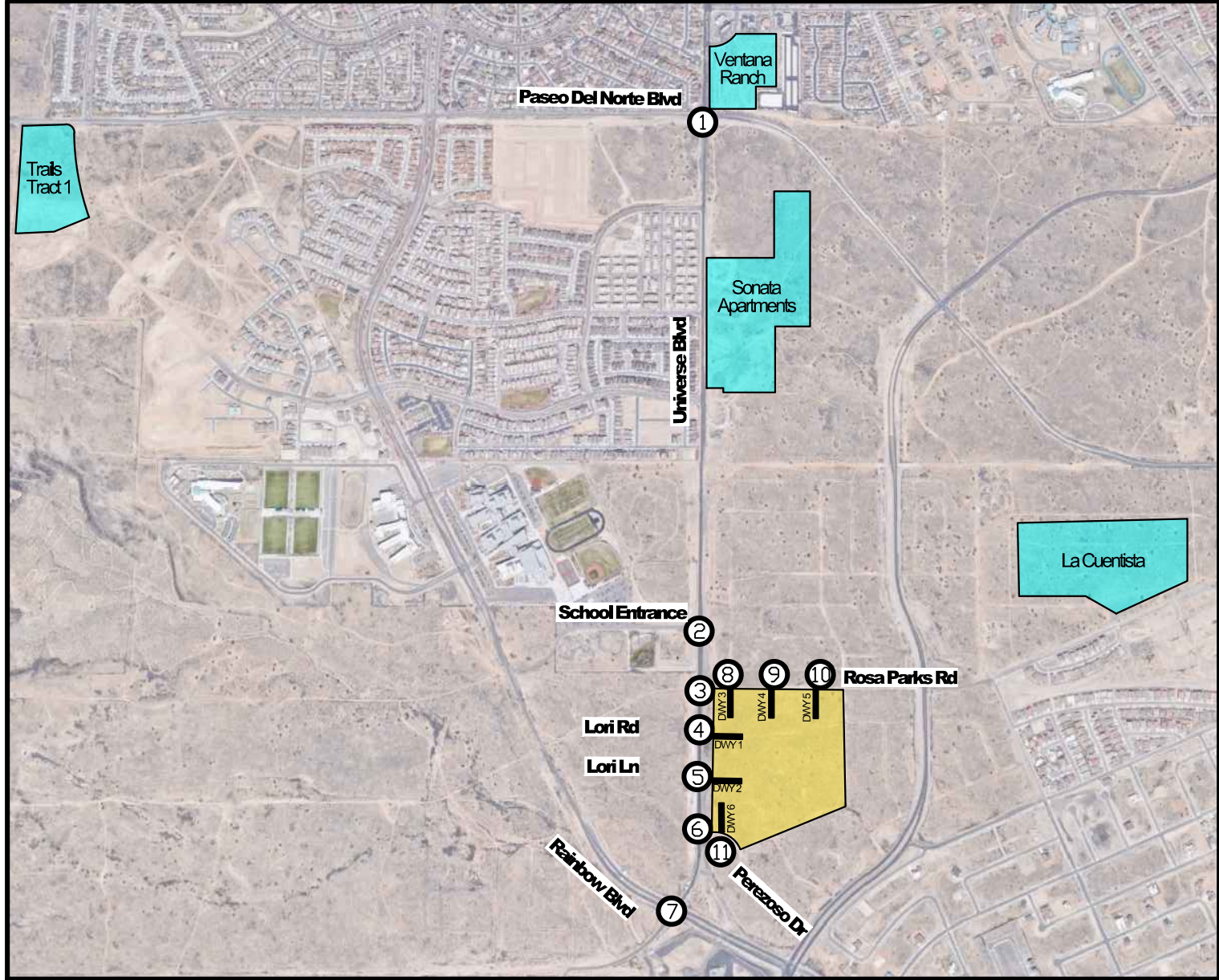
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\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS

**Universe View Subdivision**  
**Projected 2023**  
**Turning Movement Counts**



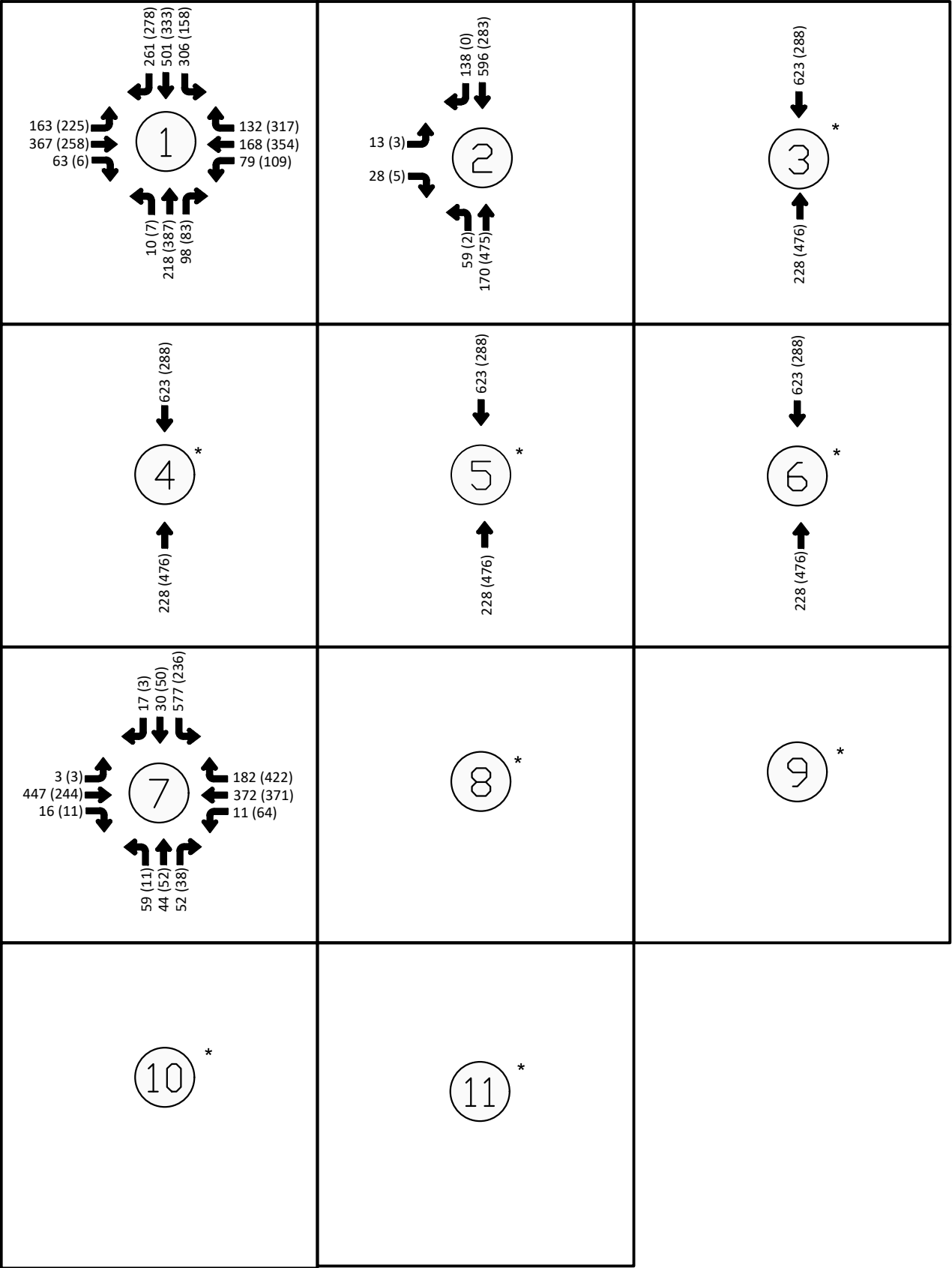


**Legend**

- # INTERSECTION NUMBER
- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



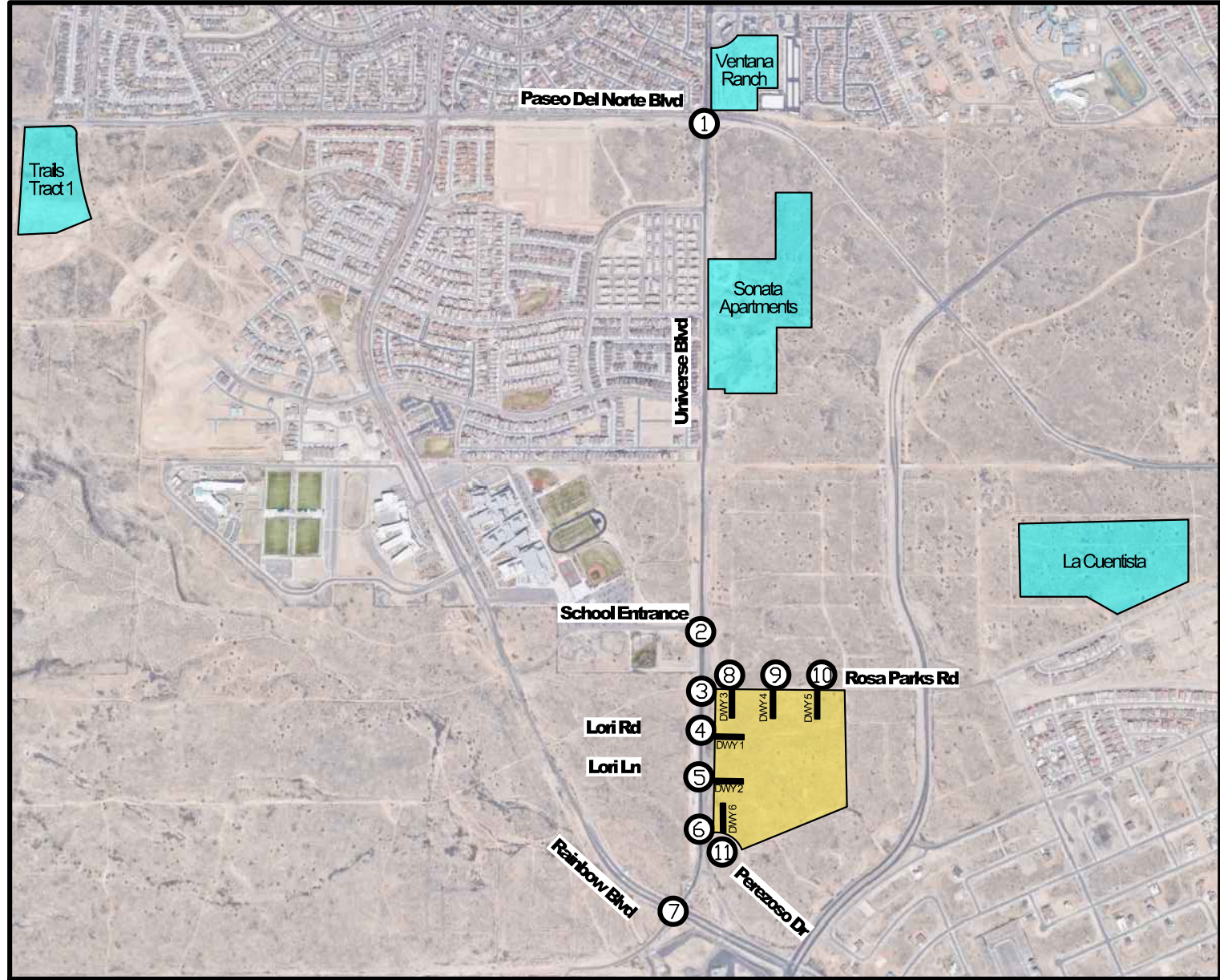
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\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS

**Universe View Subdivision**  
**Projected 2025**  
**Turning Movement Counts**



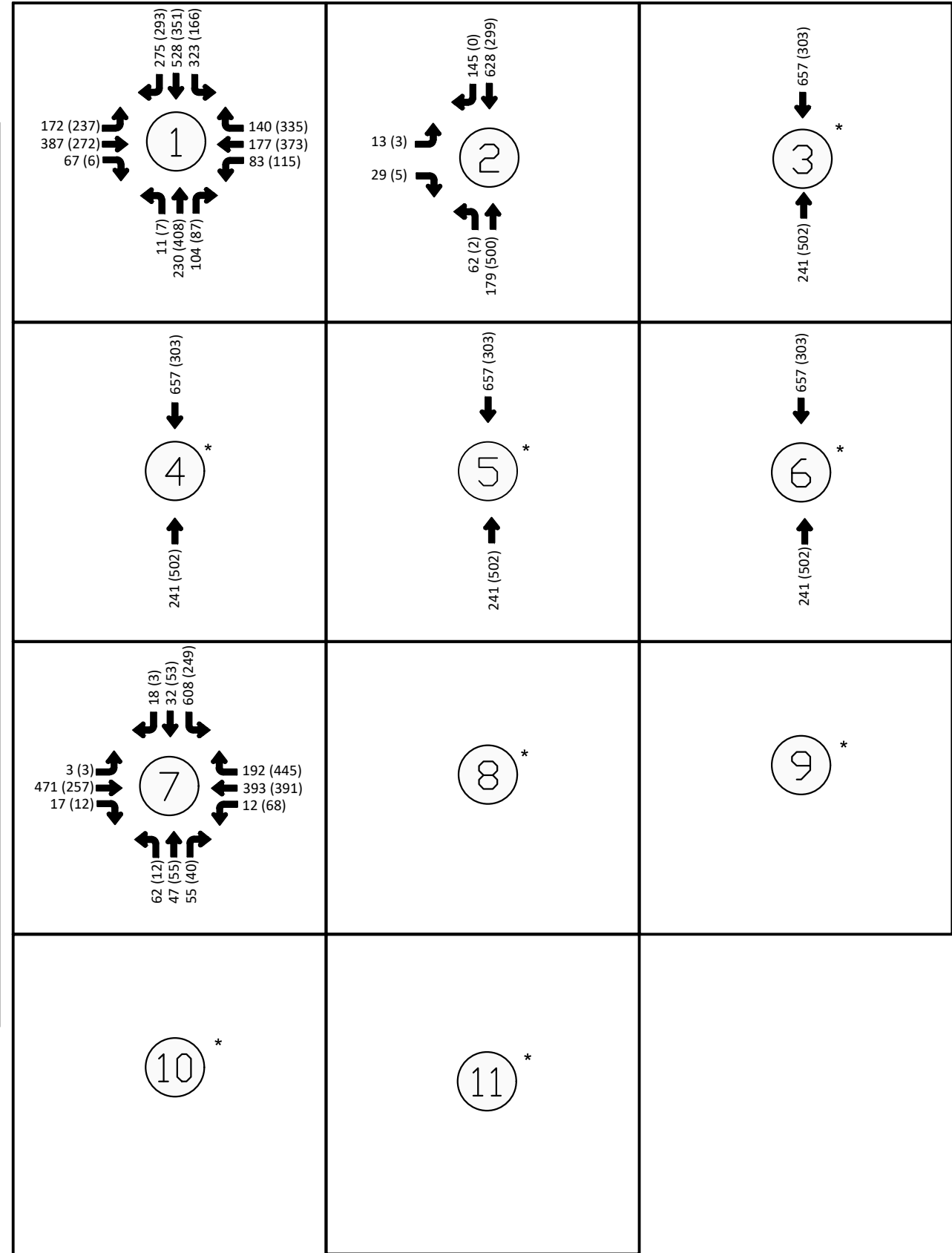


### Legend

- # INTERSECTION NUMBER
- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



NOT TO SCALE



\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS

## Universe View Subdivision

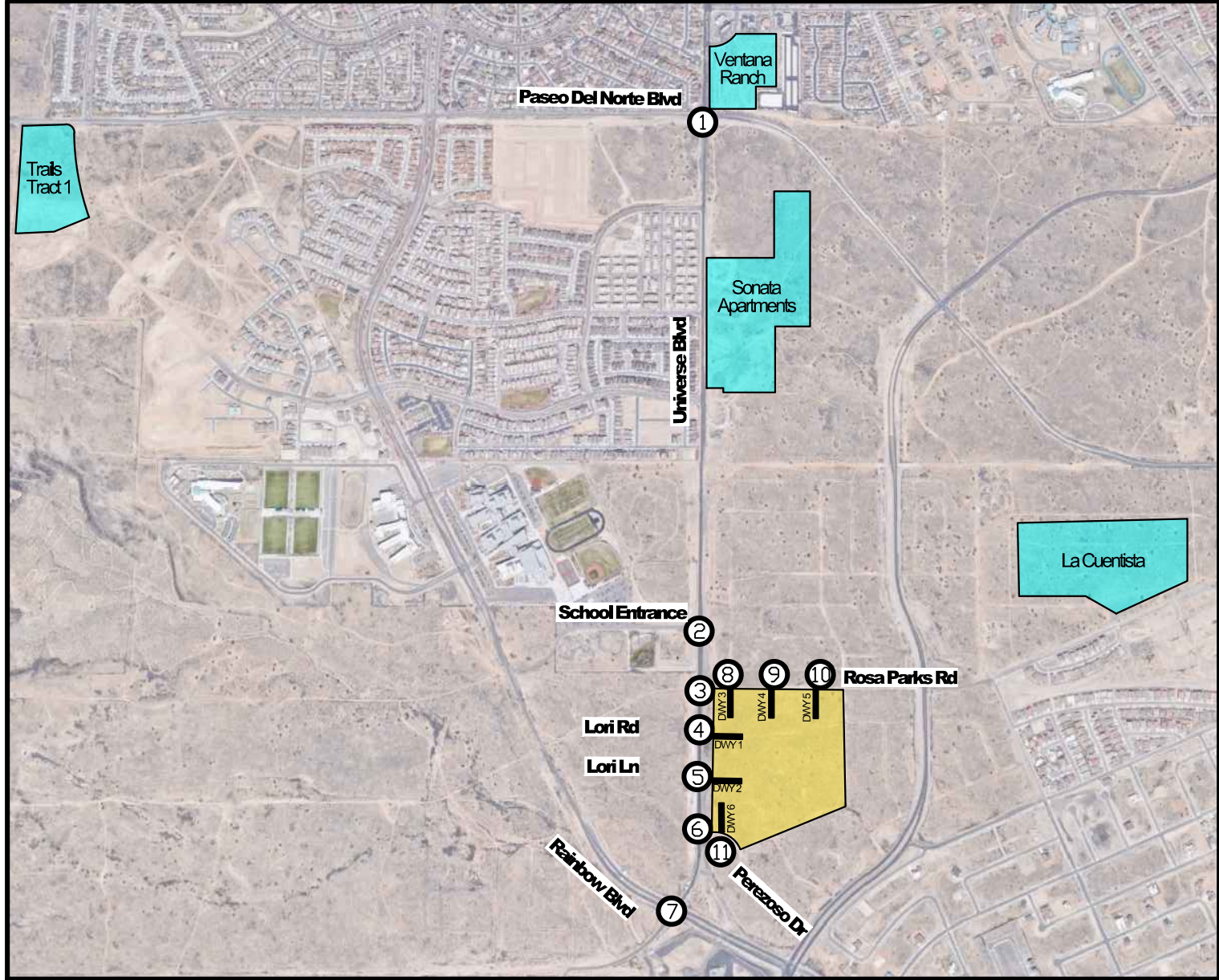
### Projected 2027

### Turning Movement Counts

Figure  
Number  
**5**

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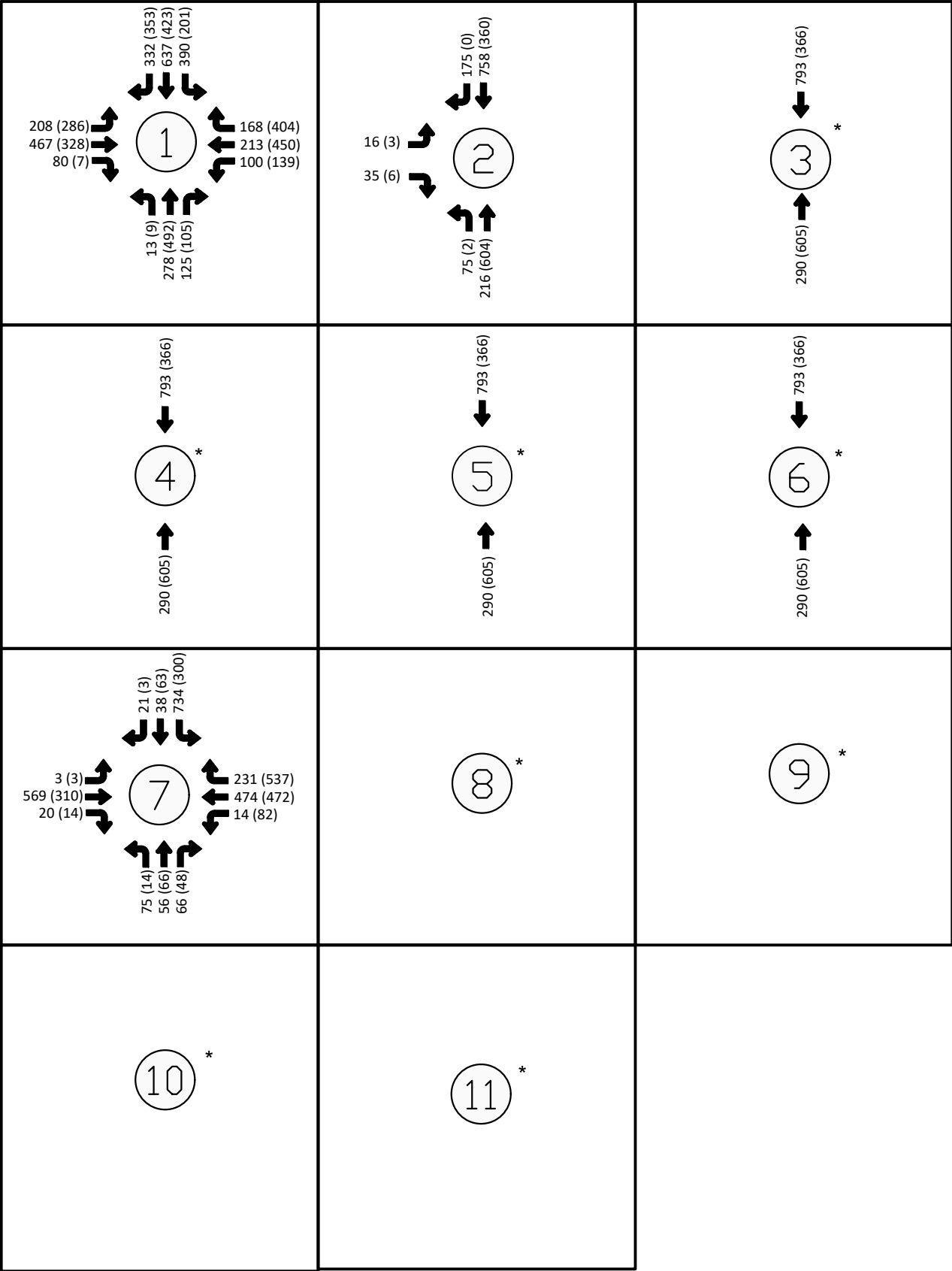


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- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY

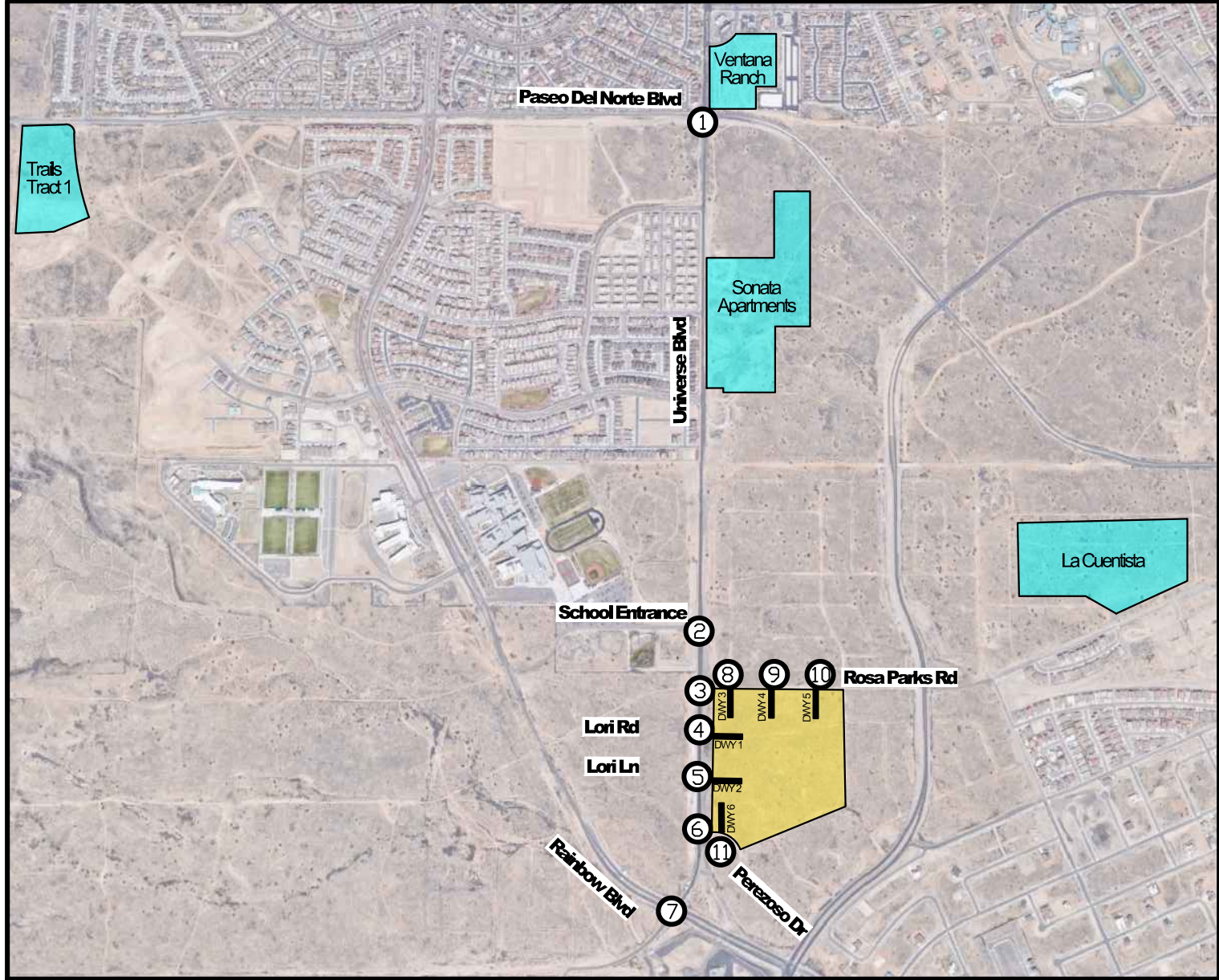


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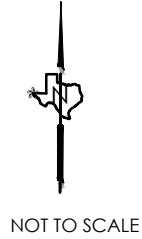


\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS





- Legend**
- # INTERSECTION NUMBER
  - # (#) AM (PM)
  - VOLCANO CLIFF SUBDIVISION
  - PROPOSED DEVELOPMENTS
  - DWY DRIVEWAY



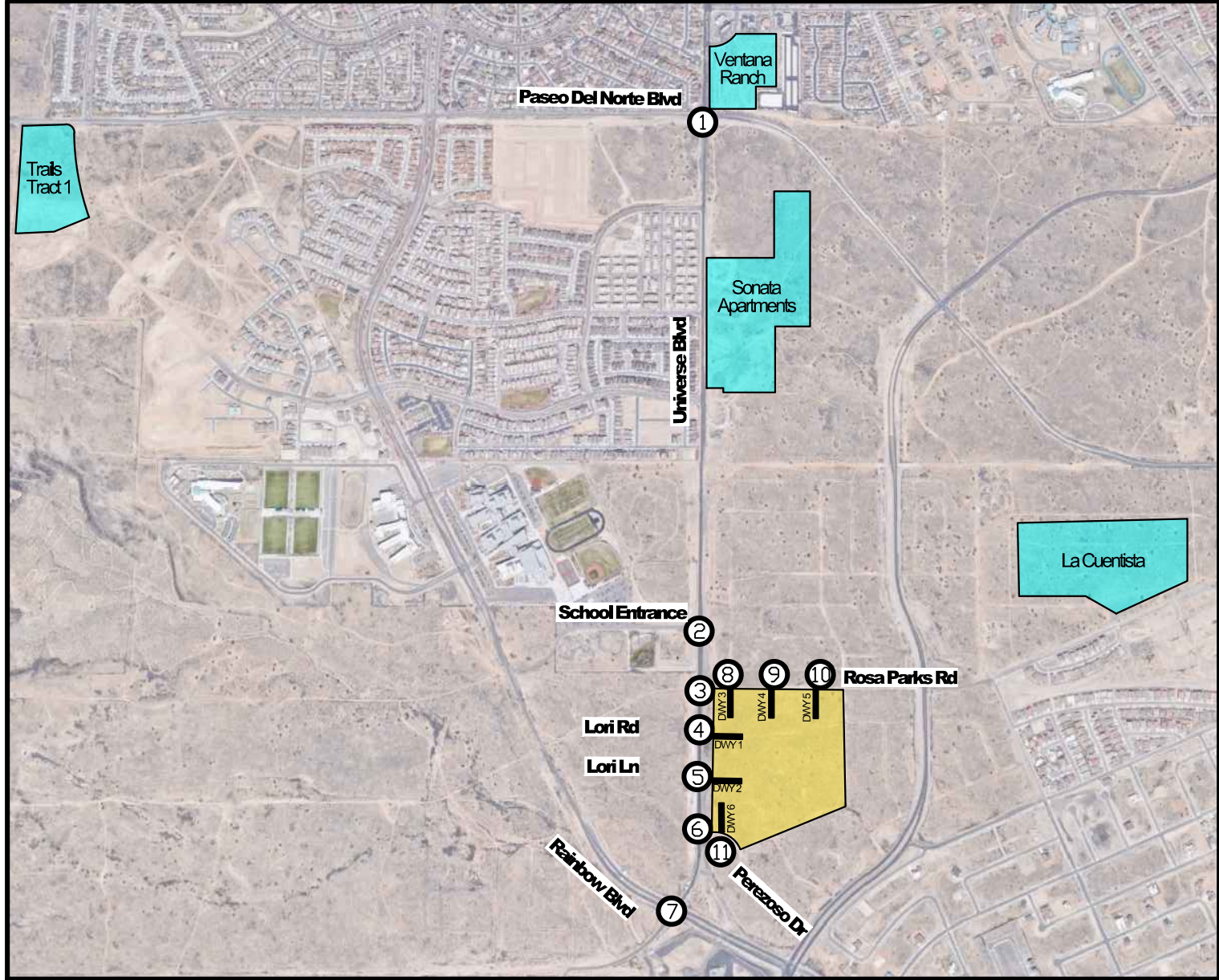
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| <div> <div>10</div> </div>                                                                                                                                                        | <div> <div>11</div> </div>                                                                                                      |                                                             |

\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS

Universe View Subdivision  
Ventana Square Development  
Turning Movement Counts

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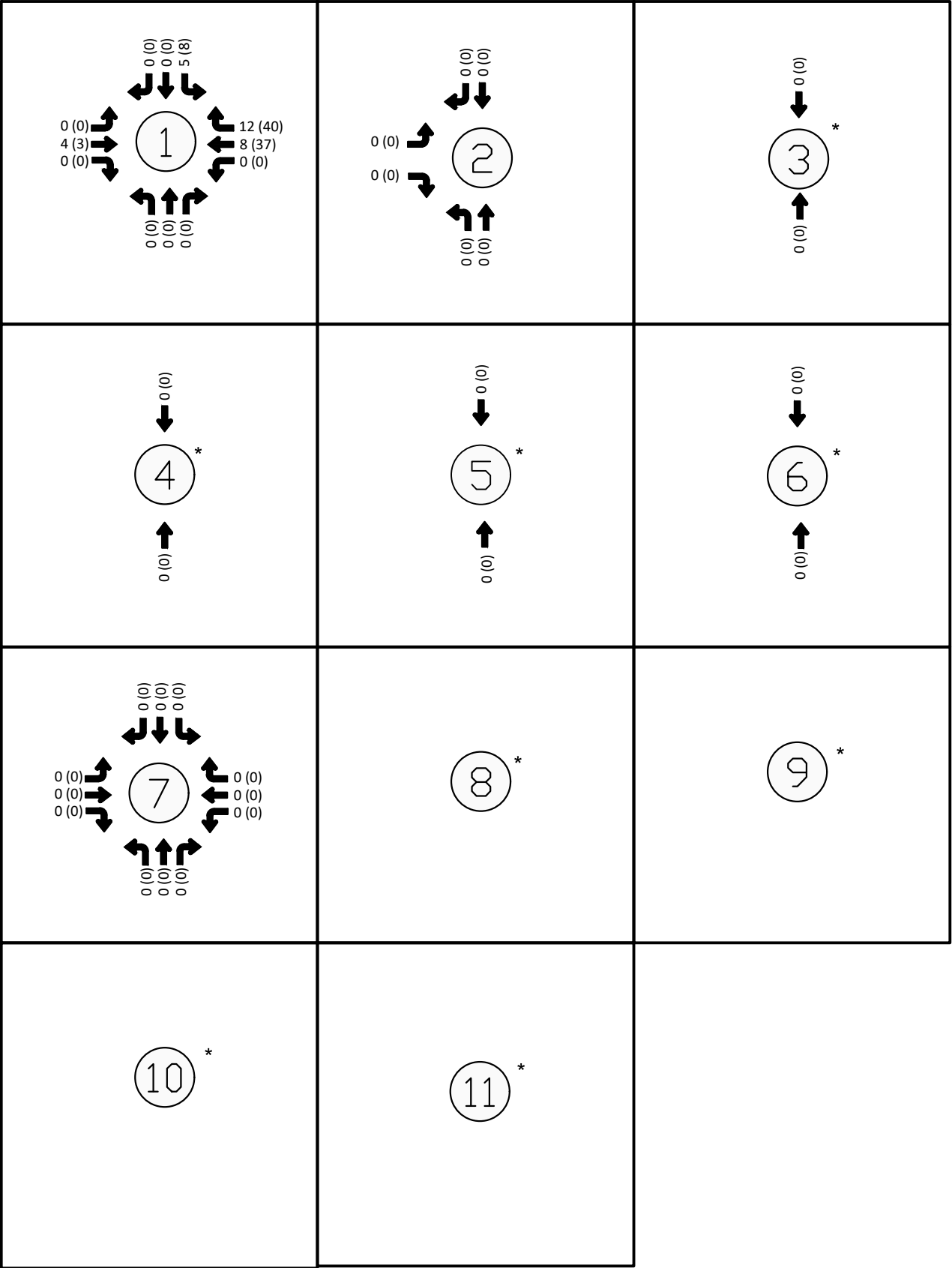


**Legend**

- # INTERSECTION NUMBER
- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



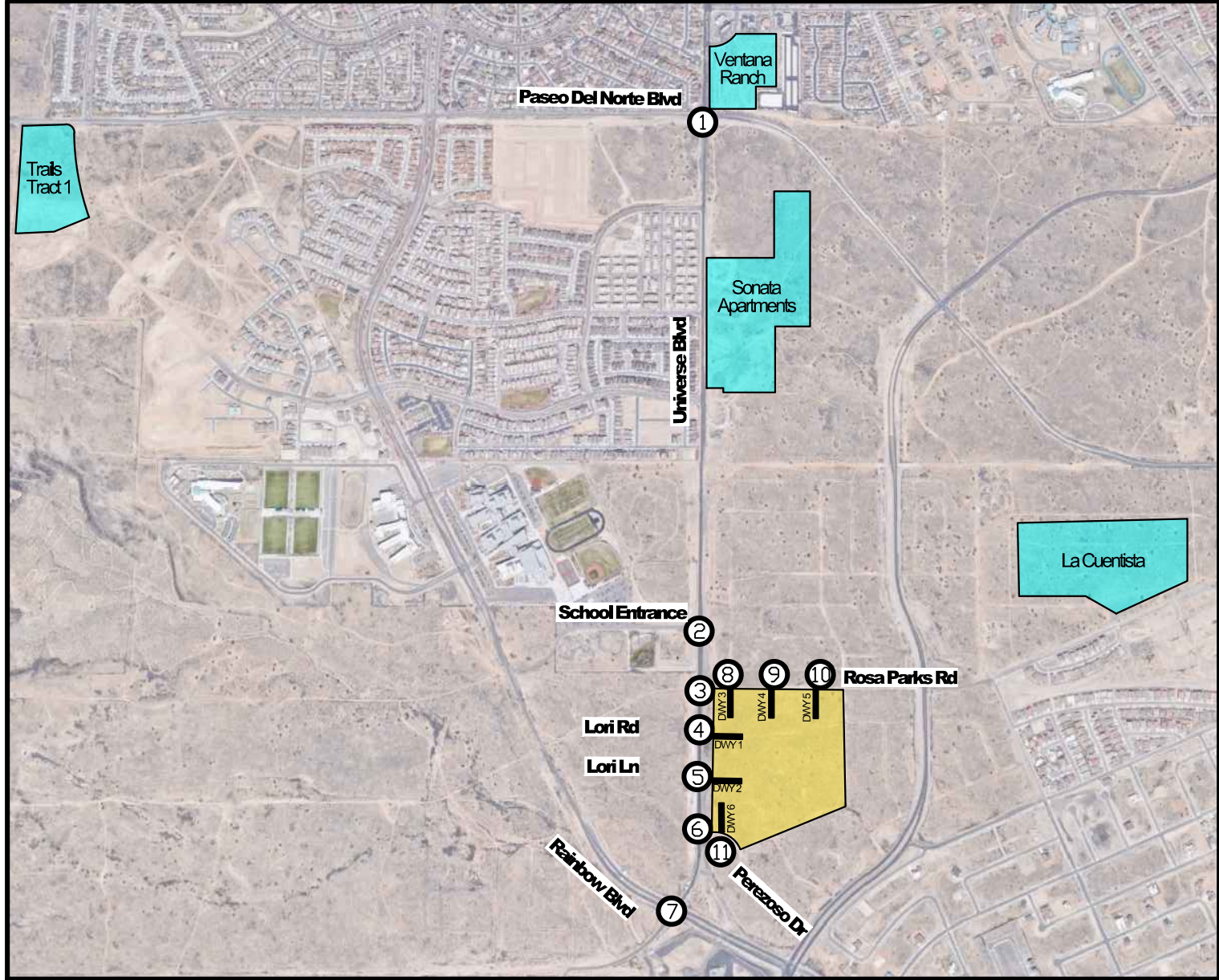
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\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS

**Universe View Subdivision**  
**La Cuentista Development**  
**Turning Movement Counts**



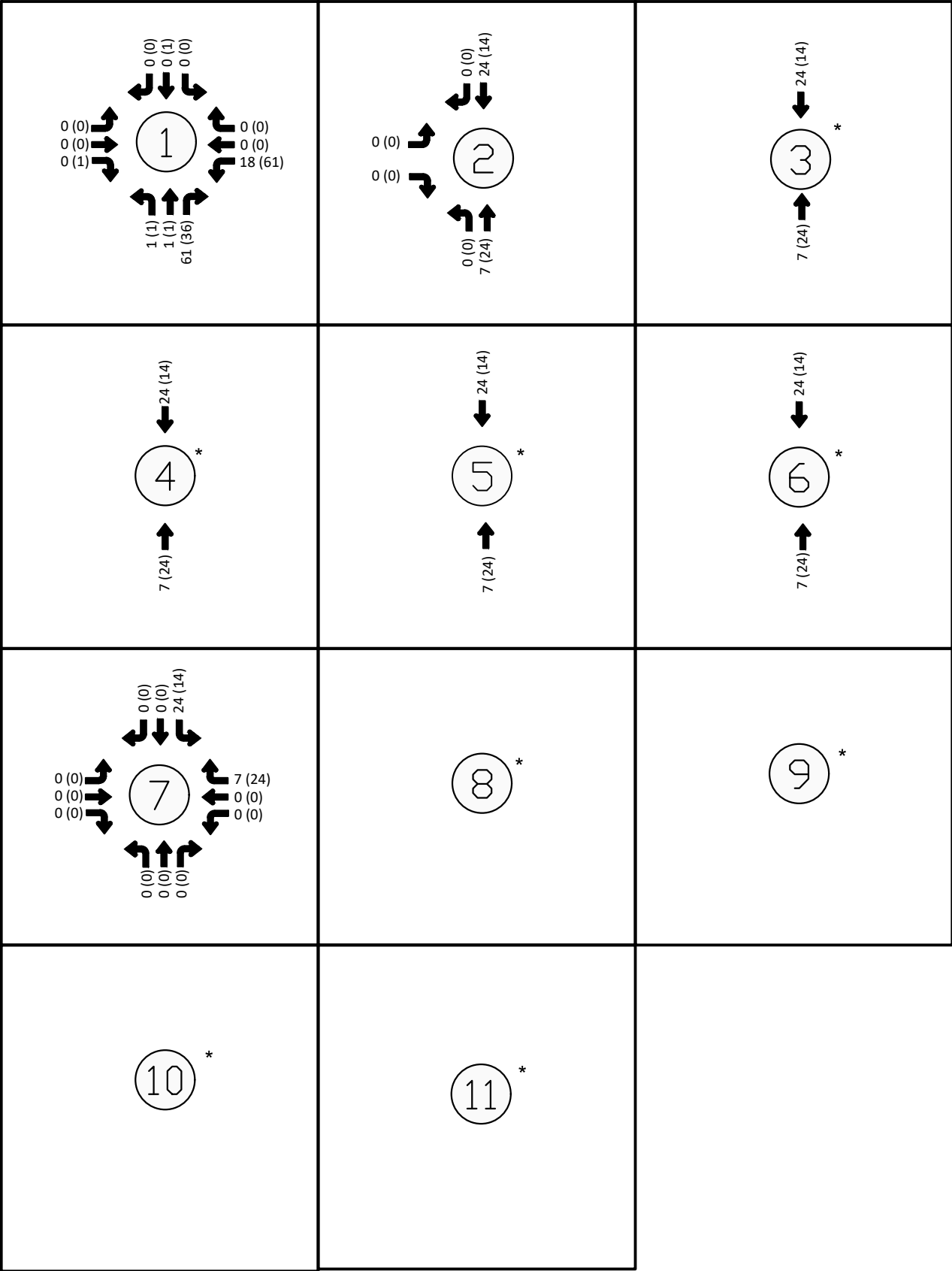


**Legend**

- # INTERSECTION NUMBER
- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



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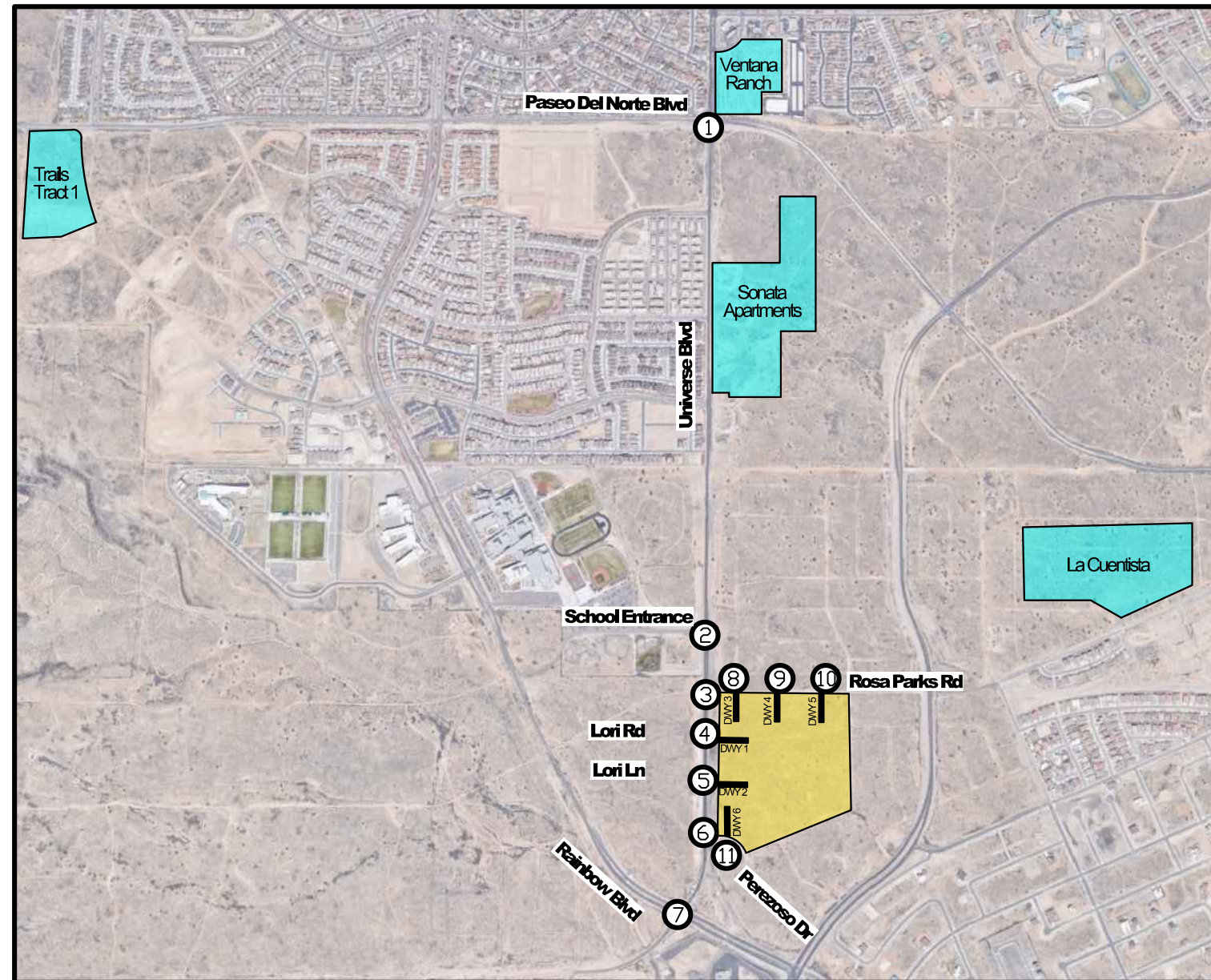


\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS

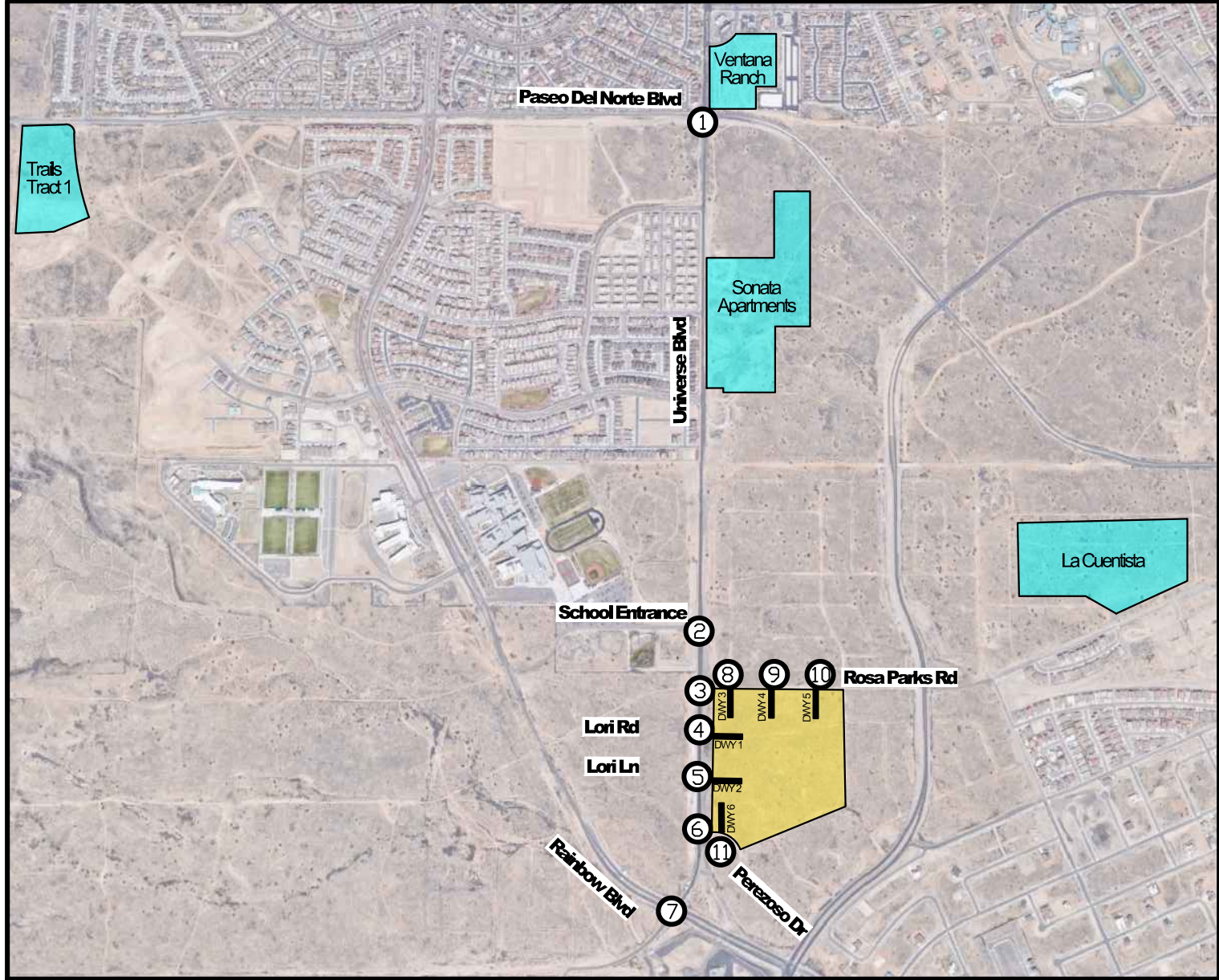
**Universe View Subdivision  
Sonata Apartments Development  
Turning Movement Counts**

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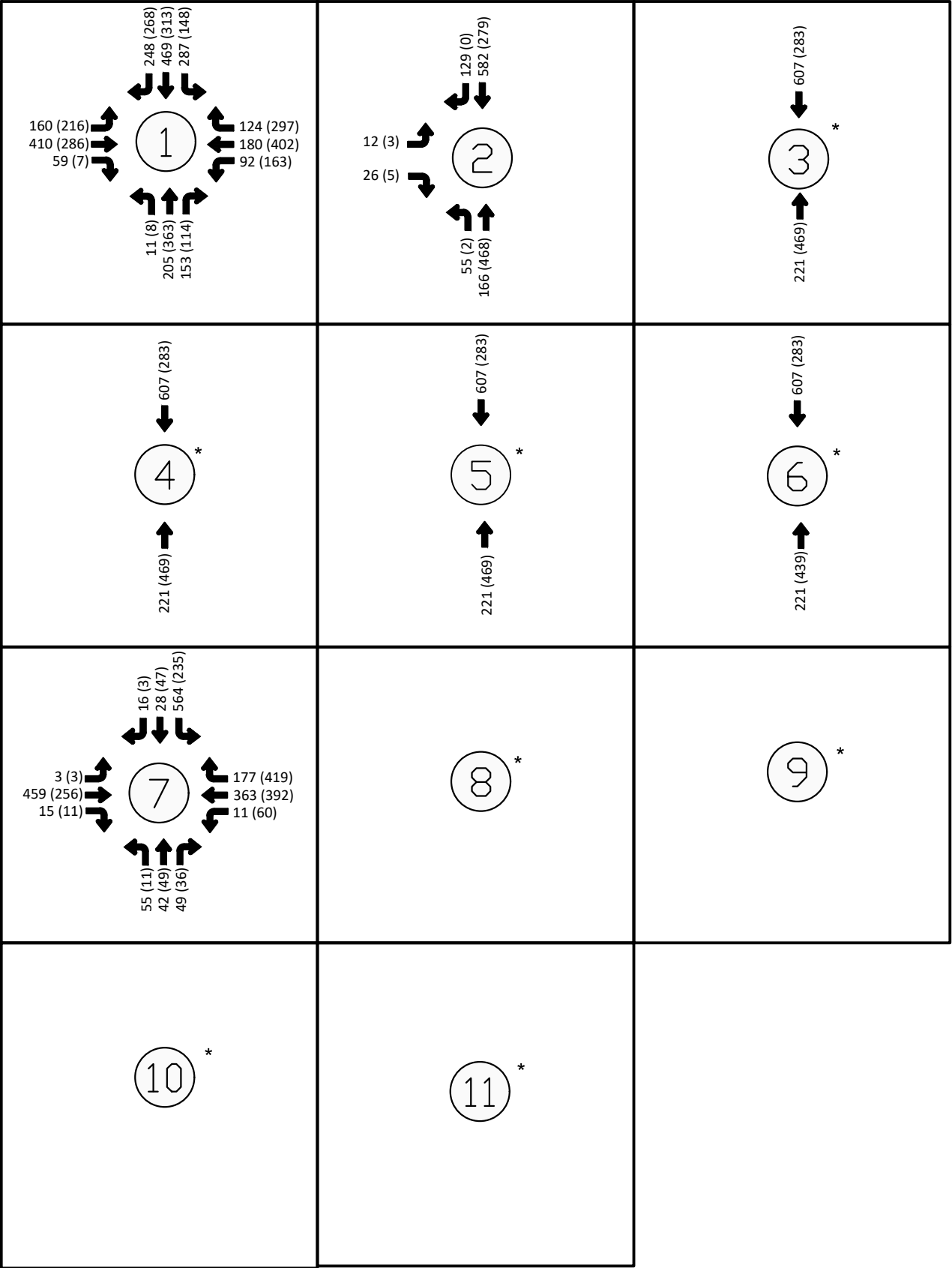


**Legend**

- # INTERSECTION NUMBER
- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



NOT TO SCALE

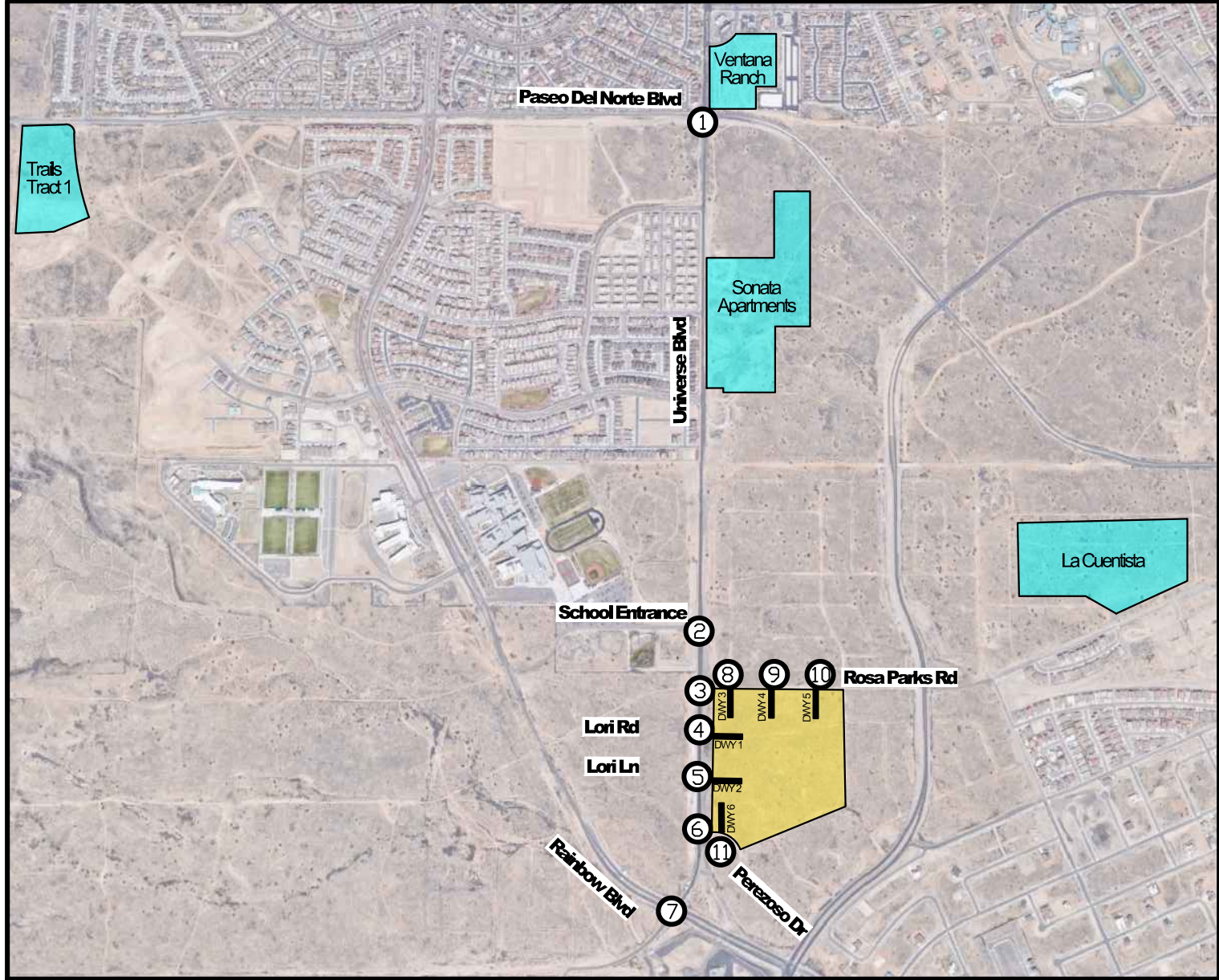


\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS







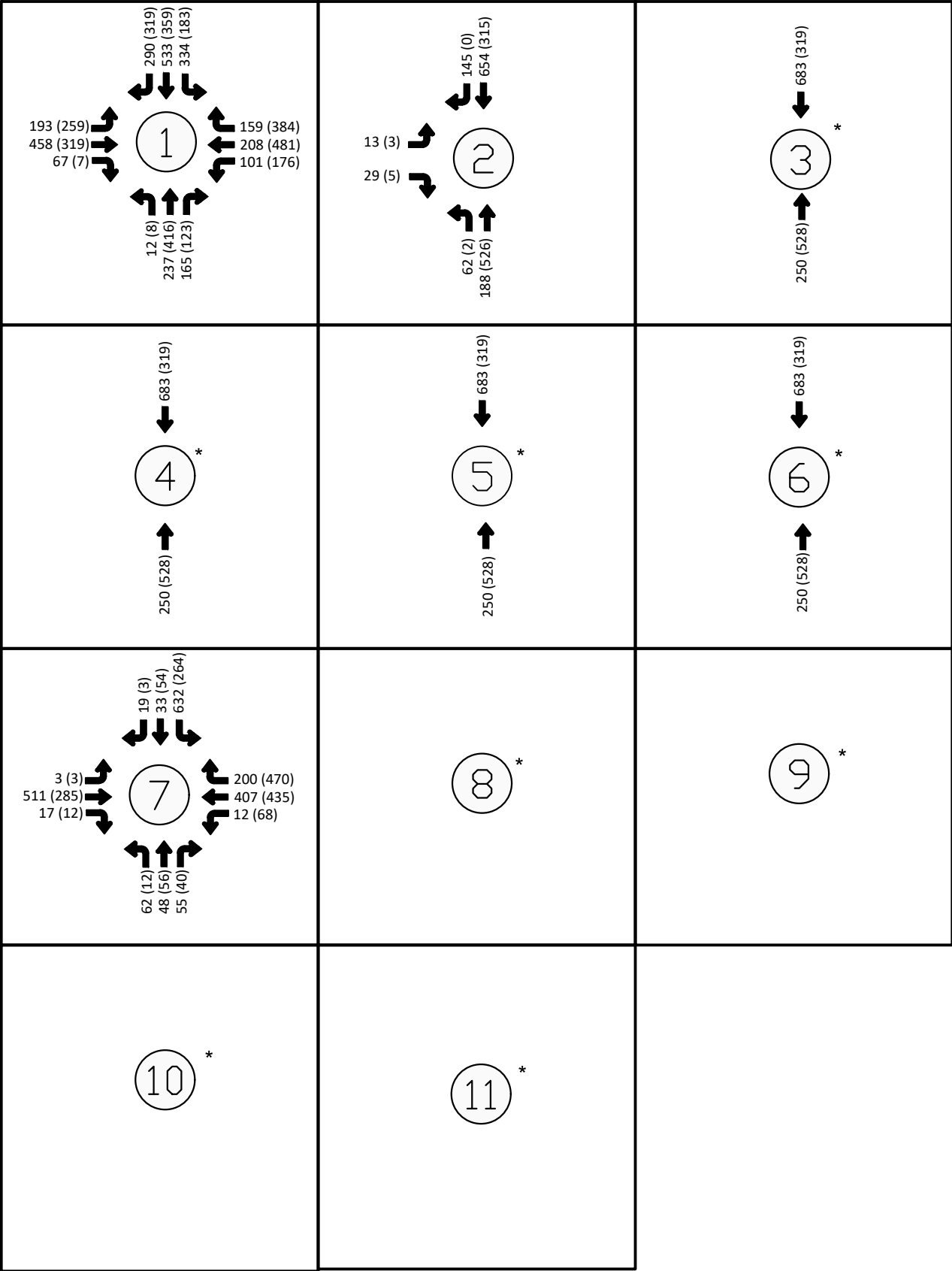


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- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY

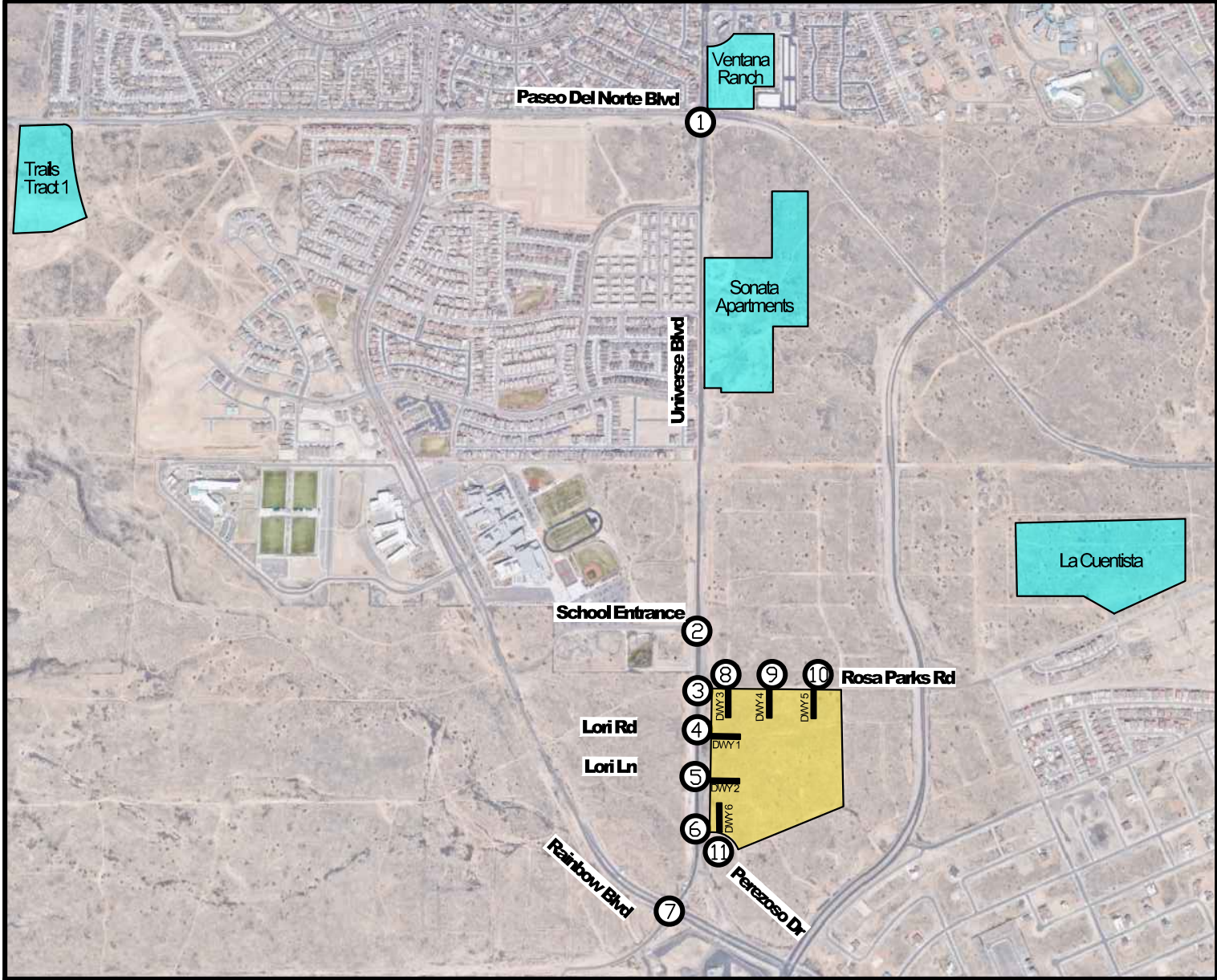


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\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS



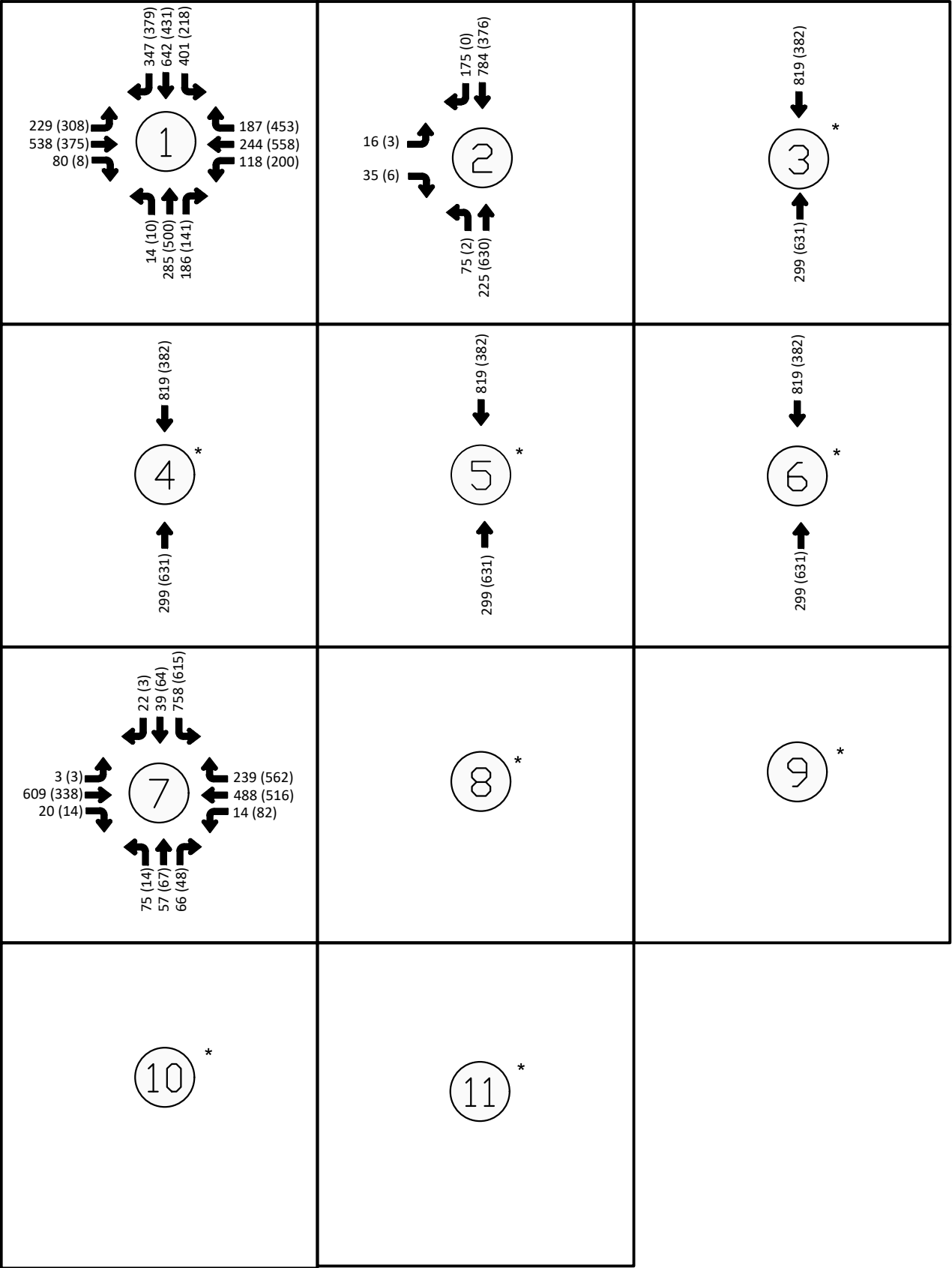


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- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY

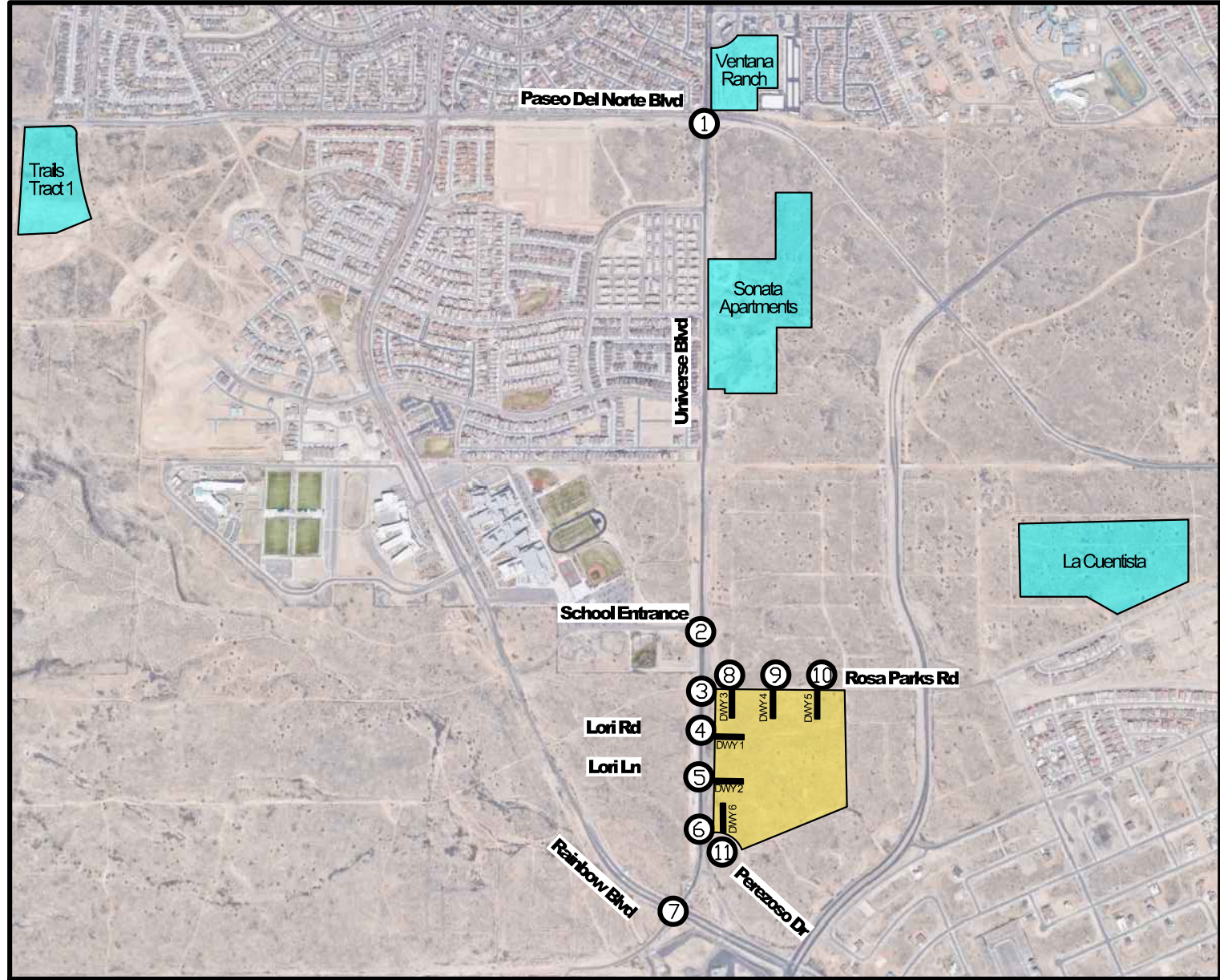


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\* FUTURE VOLCANO CLIFF SUBDIVISION ACCESS POINTS



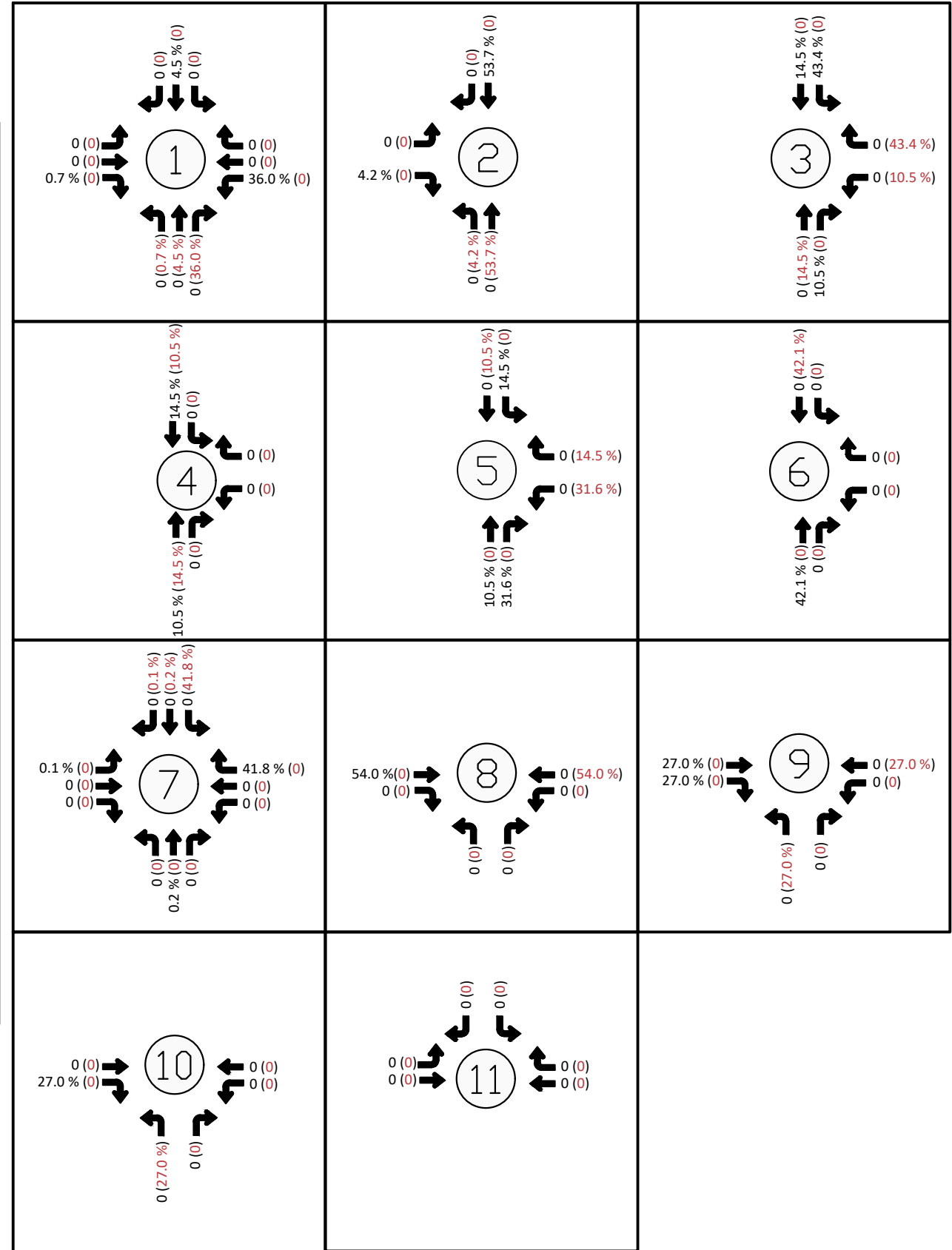


### Legend

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY

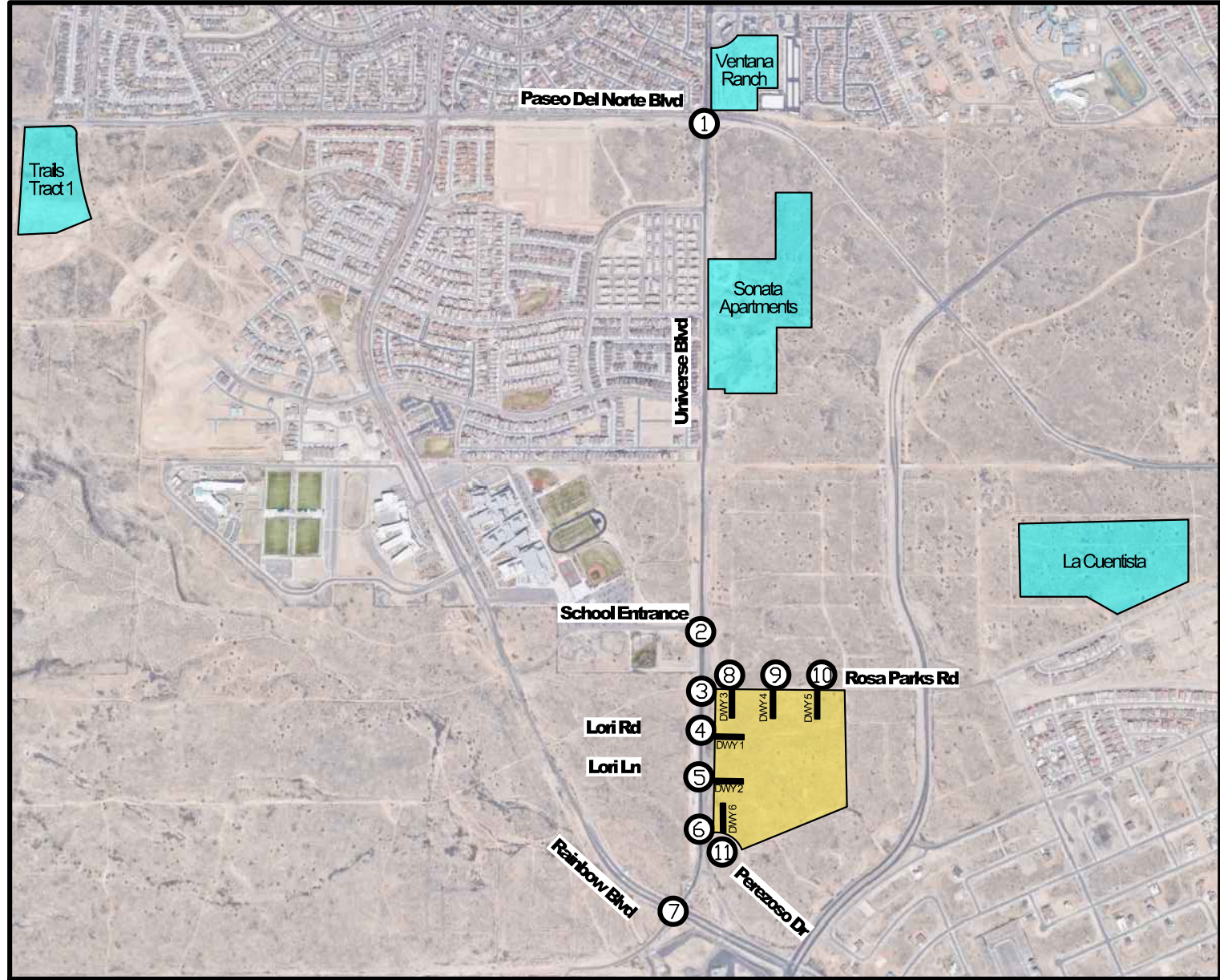


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## Universe View Subdivision AM Peak Hour Percent Distribution for Proposed Townhomes



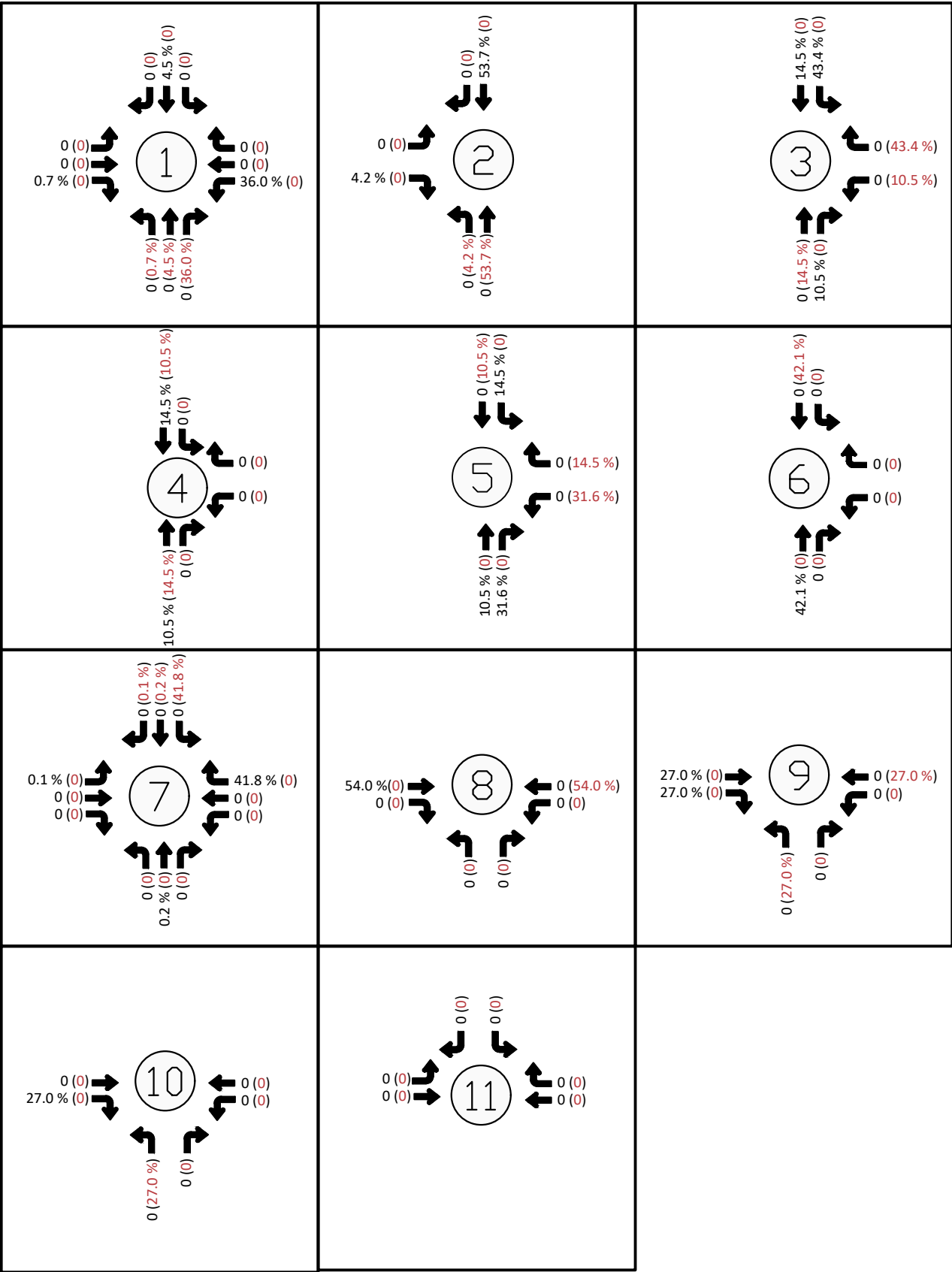


**Legend**

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



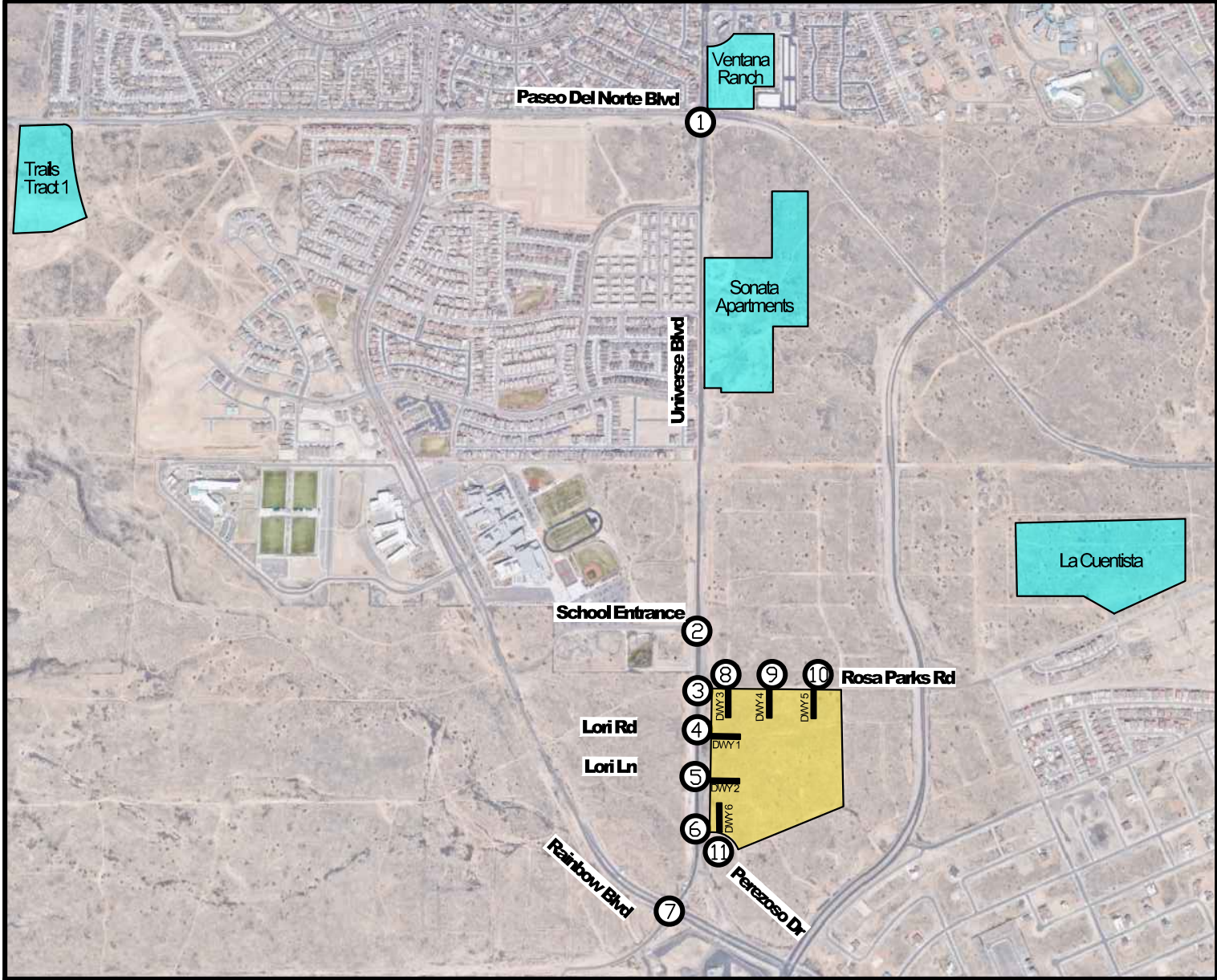
NOT TO SCALE



**Universe View Subdivision  
PM Peak Hour Percent Distribution  
for Proposed Townhomes**

**HUITT-ZOLLARS**  
333 Rio Rancho Drive NE  
Suite 101  
Rio Rancho, New Mexico 87124  
505.892.5141  
Firm No. F-761  
www.huitt-zollars.com



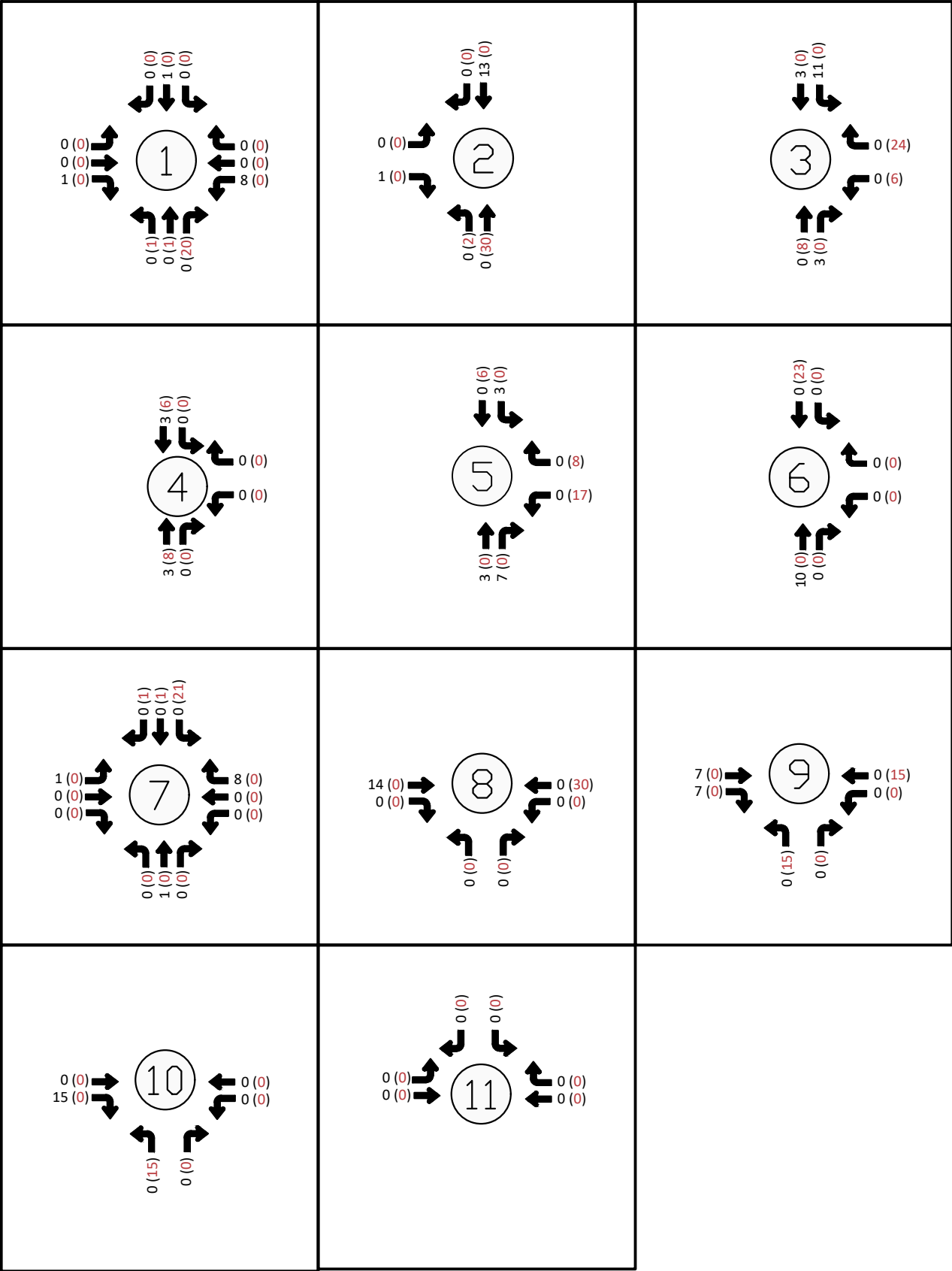


**Legend**

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



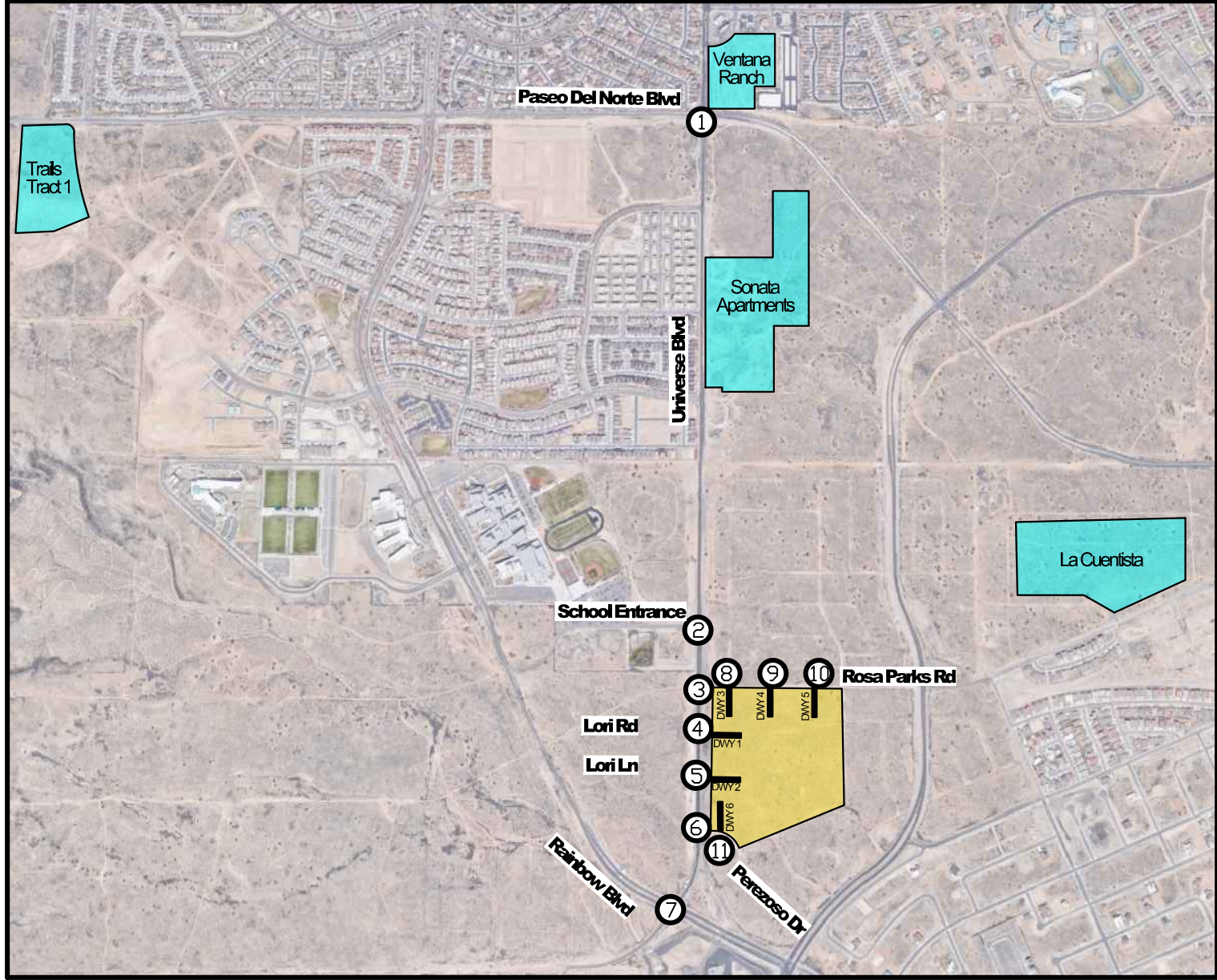
NOT TO SCALE



**Universe View Subdivision  
AM Peak Hour Generated Trips  
for Proposed Townhomes**

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905.892.5141  
Firm No. F-761  
www.huitt-zollars.com





**Legend**

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



NOT TO SCALE

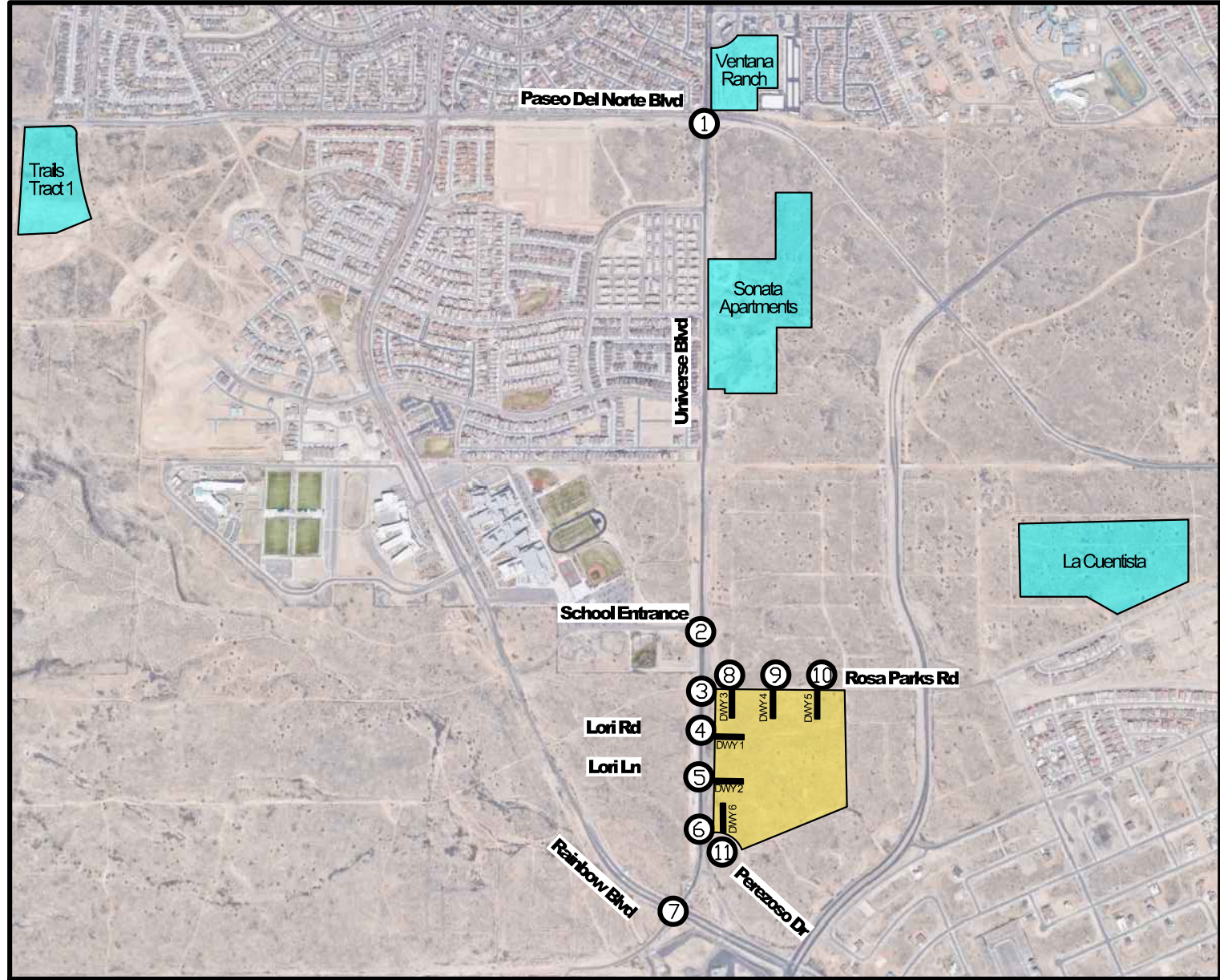
|                                                                                       |                                                                     |                                                                       |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------|
| <p>0 (0) 0 (0) 1 (0)</p> <p>0 (1) 0 (1) 0 (14)</p> <p>0 (0) 0 (0) 18 (0)</p> <p>1</p> | <p>0 (0) 2 (0)</p> <p>0 (2) 0 (21)</p> <p>0 (0) 28 (0)</p> <p>2</p> | <p>0 (8) 22 (0)</p> <p>0 (6) 6 (0)</p> <p>0 (17) 0 (4)</p> <p>3</p>   |
| <p>0 (0) 8 (4) 0 (0)</p> <p>6 (6) 0 (0)</p> <p>0 (0) 0 (0)</p> <p>4</p>               | <p>0 (0) 8 (0)</p> <p>6 (0) 17 (0)</p> <p>0 (6) 0 (13)</p> <p>5</p> | <p>0 (17) 0 (0)</p> <p>23 (0) 0 (0)</p> <p>0 (0) 0 (0)</p> <p>6</p>   |
| <p>0 (0) 0 (1) 0 (15)</p> <p>1 (0) 0 (0) 0 (0)</p> <p>0 (0) 2 (0) 0 (0)</p> <p>7</p>  | <p>28 (0) 0 (0)</p> <p>0 (0) 0 (0)</p> <p>0 (21) 0 (0)</p> <p>8</p> | <p>14 (0) 14 (0)</p> <p>0 (11) 0 (0)</p> <p>0 (10) 0 (0)</p> <p>9</p> |
| <p>0 (0) 14 (0)</p> <p>0 (10) 0 (0)</p> <p>0 (0) 0 (0)</p> <p>10</p>                  | <p>0 (0) 0 (0)</p> <p>0 (0) 0 (0)</p> <p>0 (0) 0 (0)</p> <p>11</p>  |                                                                       |

**Universe View Subdivision  
PM Peak Hour Generated Trips  
for Proposed Townhomes**

**Figure  
Number  
18**

**HUITT-ZOLLARS**  
333 Rio Rancho Drive NE  
Suite 101  
Rio Rancho, New Mexico 87124  
905.892.5141  
Firm No. F-761  
www.huitt-zollars.com



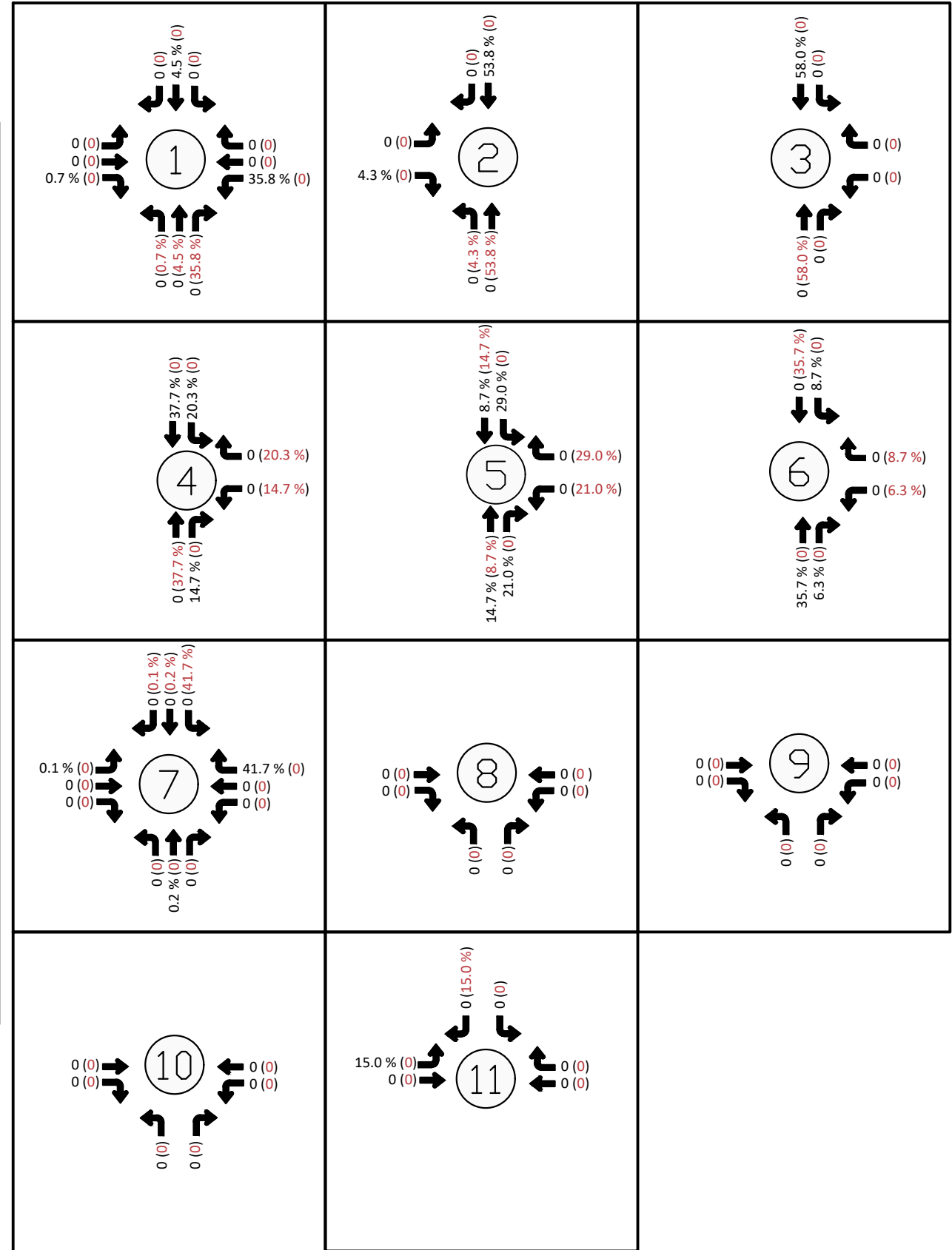


### Legend

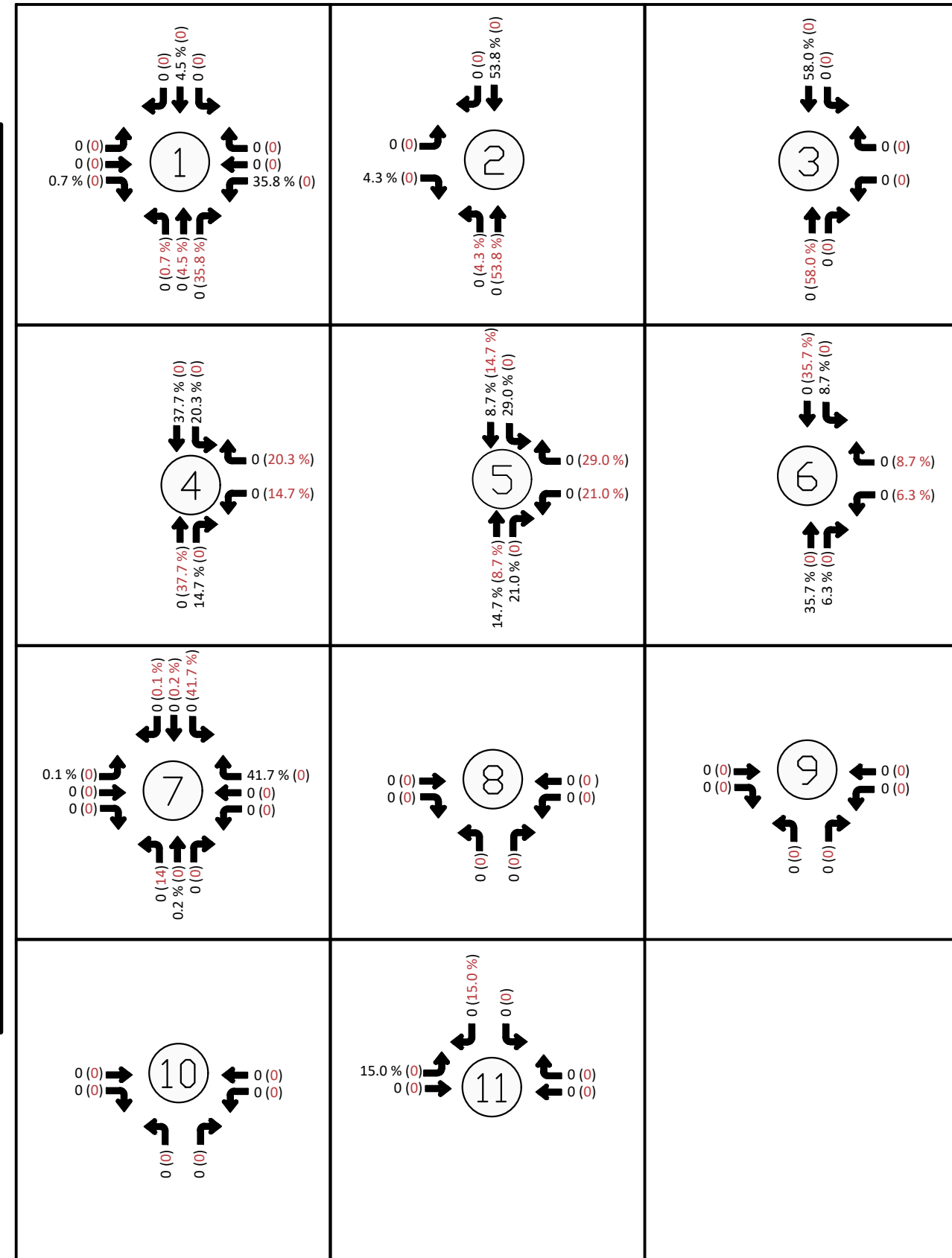
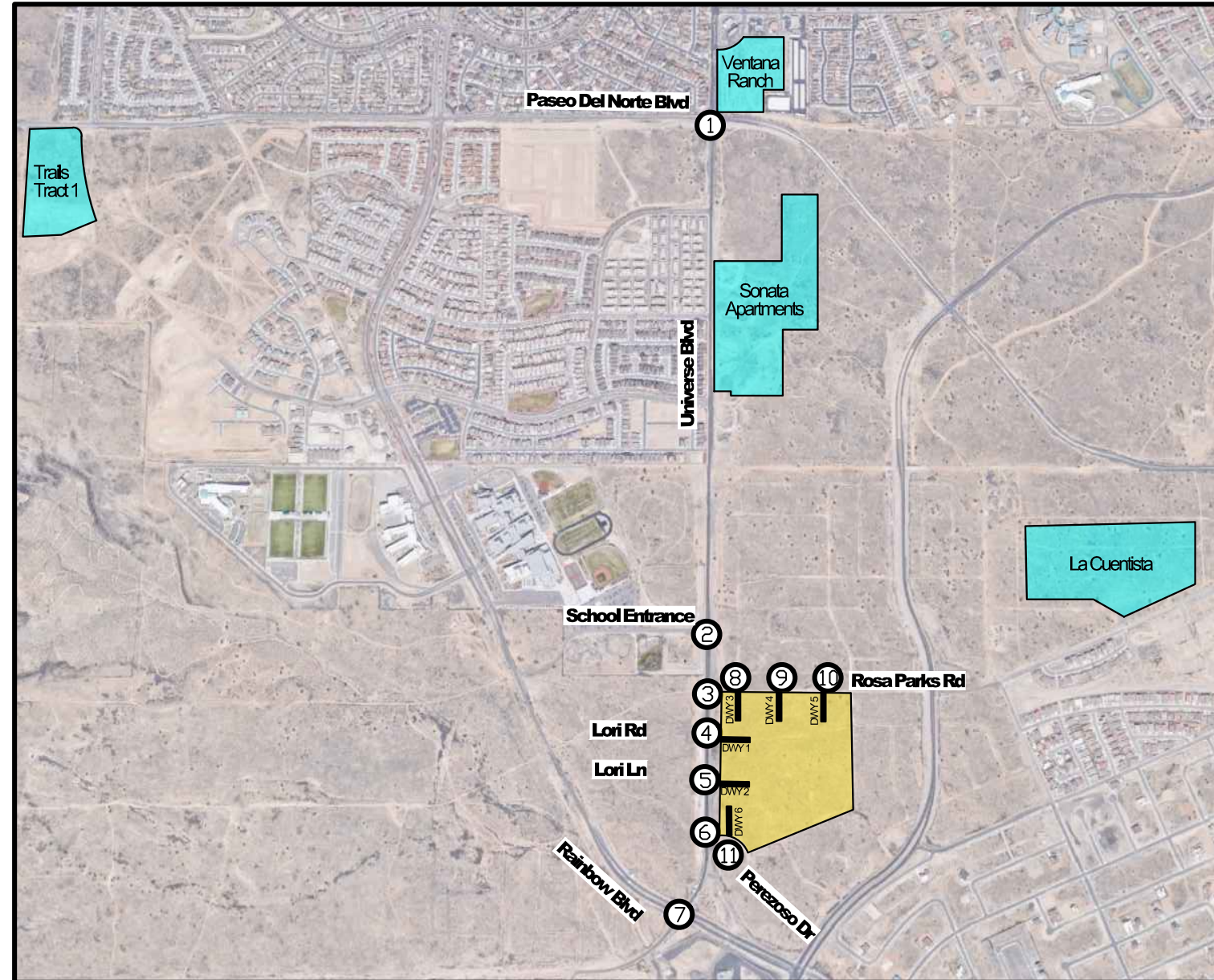
- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



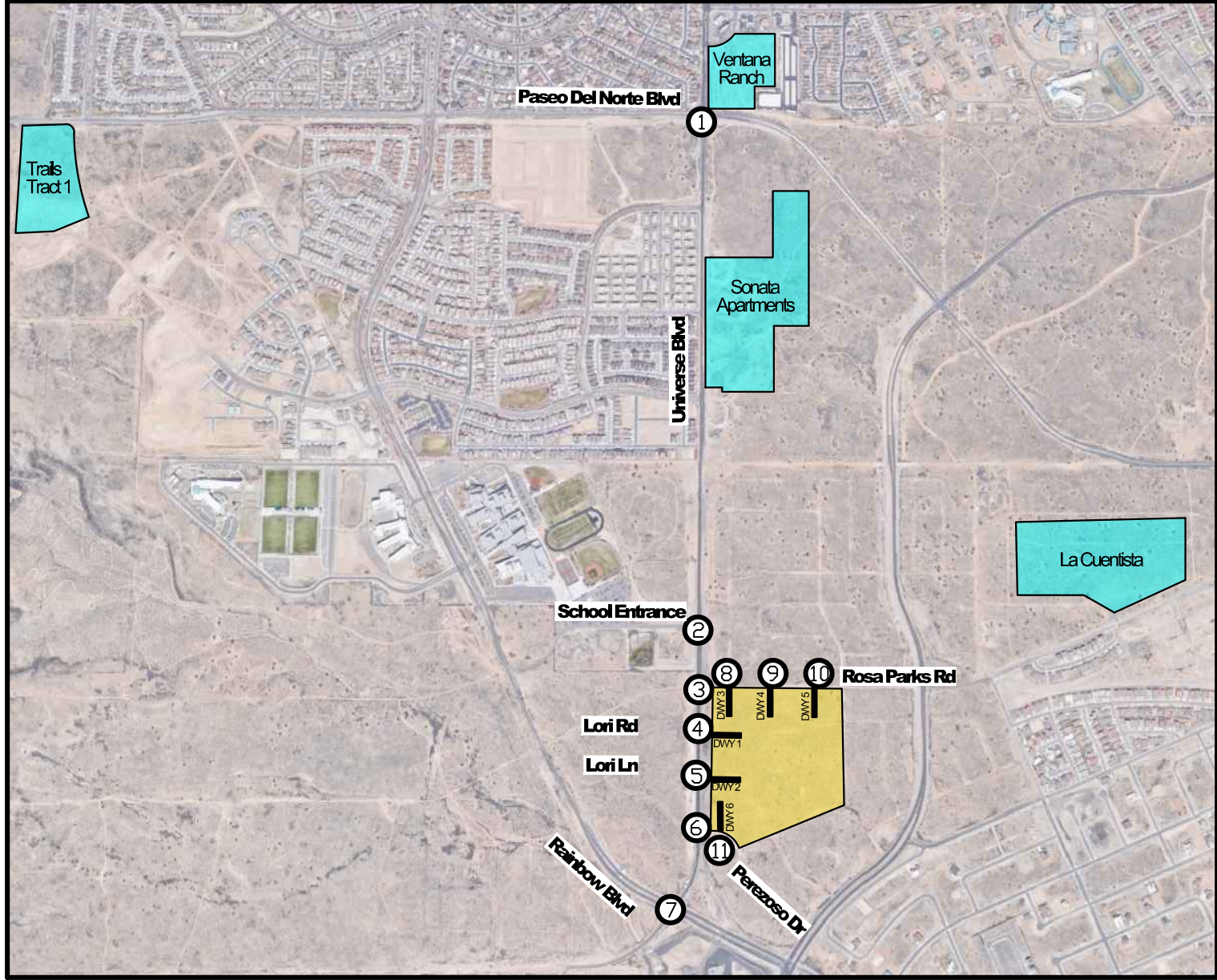
NOT TO SCALE











**Legend**

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



NOT TO SCALE

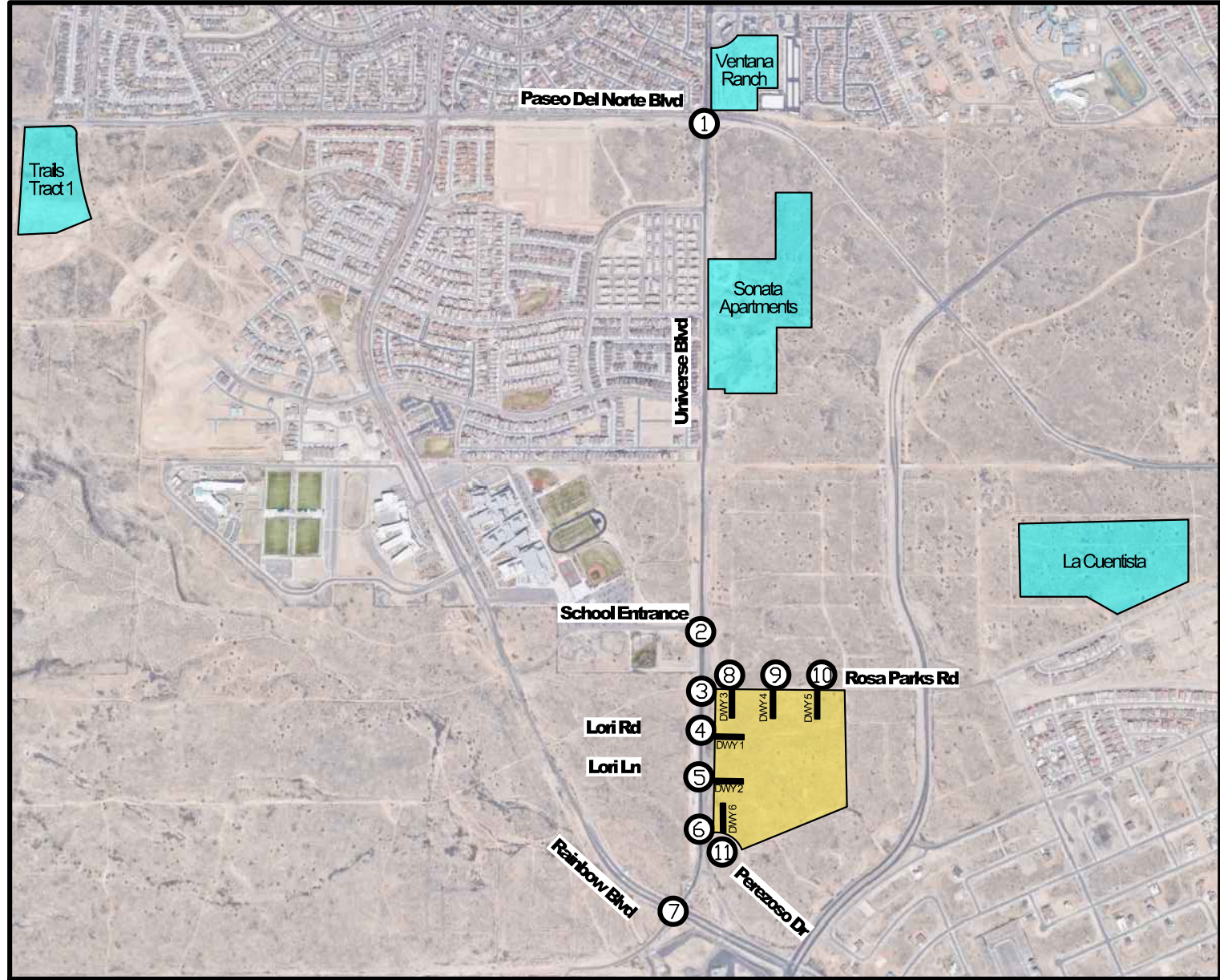
|                                                             |                                                       |                                                       |
|-------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| <p>0 (0) 0 (0) 1 (0)</p> <p>0 (1) 0 (3) 0 (21)</p> <p>1</p> | <p>0 (0) 0 (0) 1 (0)</p> <p>0 (3) 0 (33)</p> <p>2</p> | <p>0 (0) 0 (0) 0 (0)</p> <p>0 (36) 0 (0)</p> <p>3</p> |
| <p>0 (23) 3 (0)</p> <p>7 (4) 0 (0)</p> <p>4</p>             | <p>3 (5) 4 (0)</p> <p>2 (9) 5 (0)</p> <p>5</p>        | <p>7 (0) 1 (0)</p> <p>0 (22) 2 (0)</p> <p>6</p>       |
| <p>1 (0) 0 (0) 0 (0)</p> <p>0 (0) 1 (0) 0 (0)</p> <p>7</p>  | <p>0 (0) 0 (0)</p> <p>0 (0) 0 (0)</p> <p>8</p>        | <p>0 (0) 0 (0)</p> <p>0 (0) 0 (0)</p> <p>9</p>        |
| <p>0 (0) 0 (0)</p> <p>0 (0) 0 (0)</p> <p>10</p>             | <p>3 (0) 0 (0)</p> <p>0 (9) 0 (0)</p> <p>11</p>       |                                                       |

**Universe View Subdivision**  
**AM Peak Hour Generated Trips**  
**for Proposed Apartments**







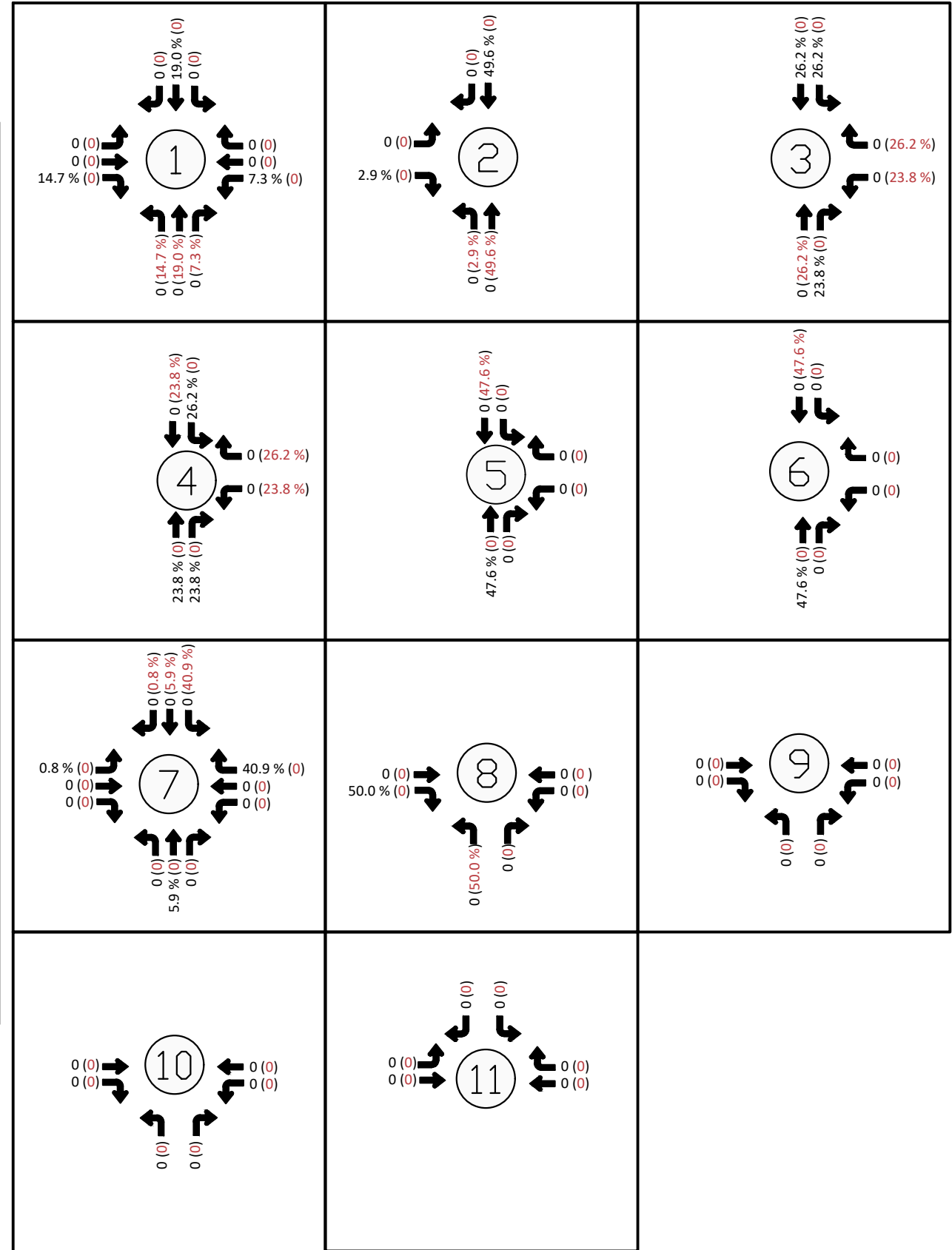


### Legend

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



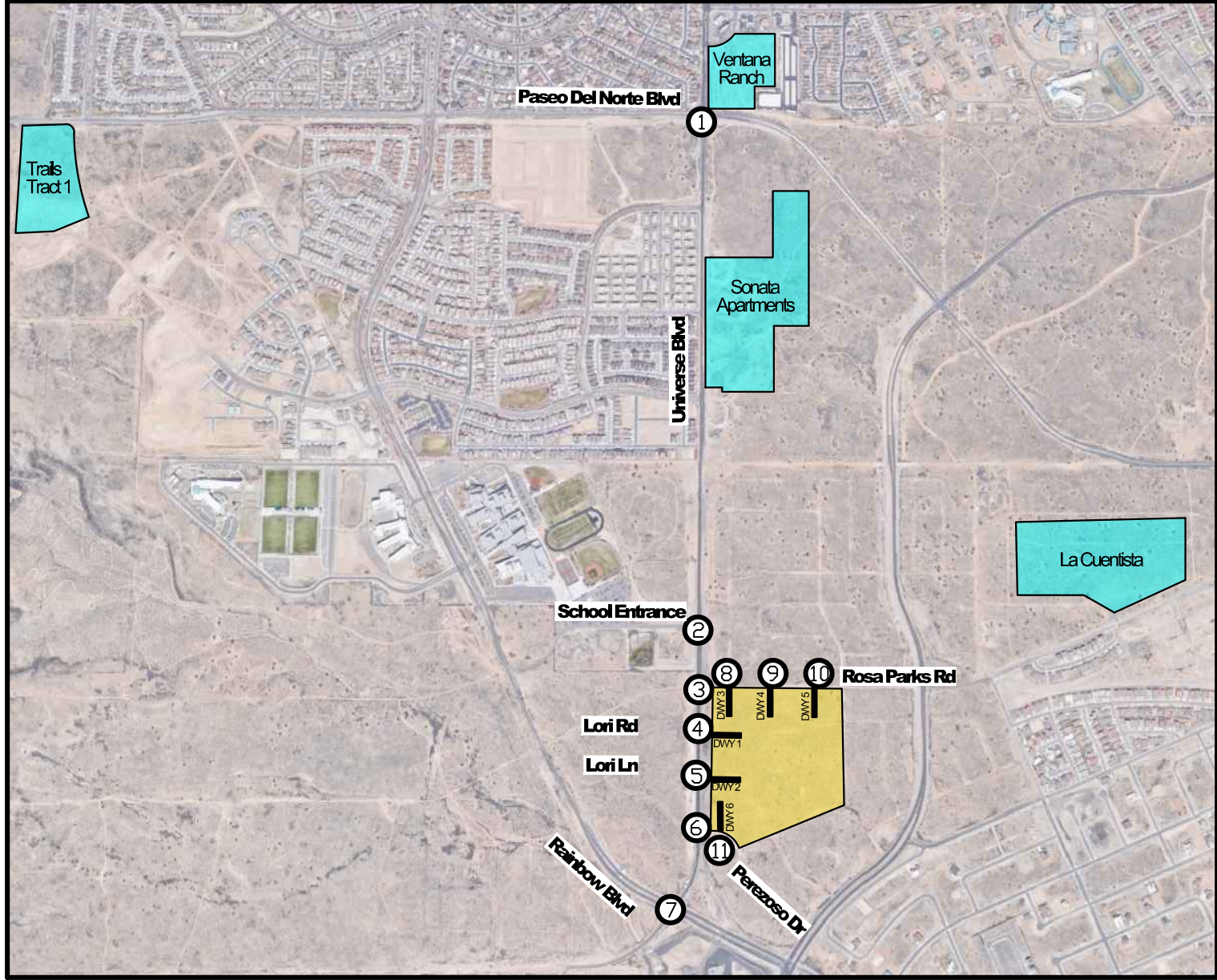
NOT TO SCALE









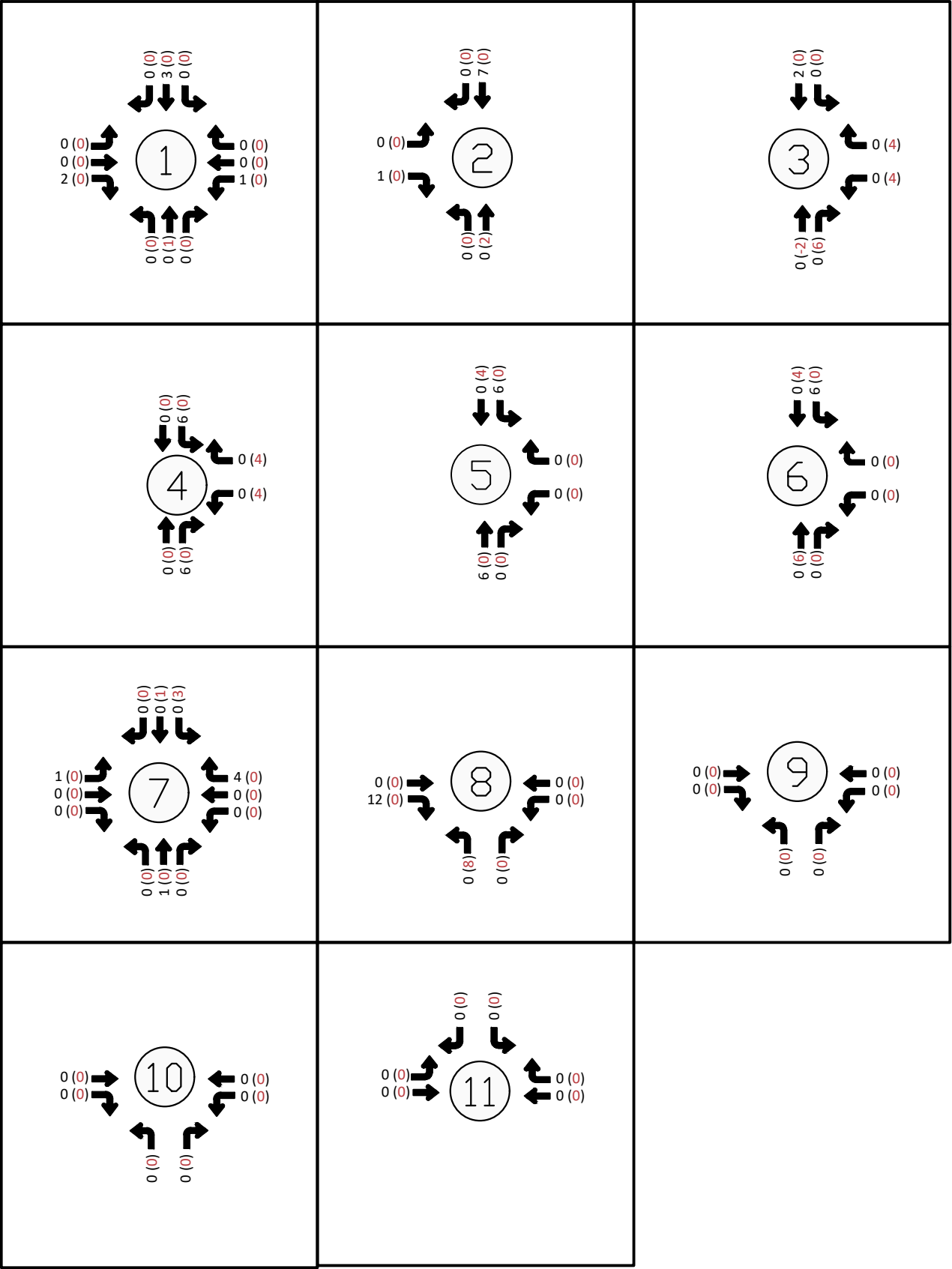


**Legend**

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



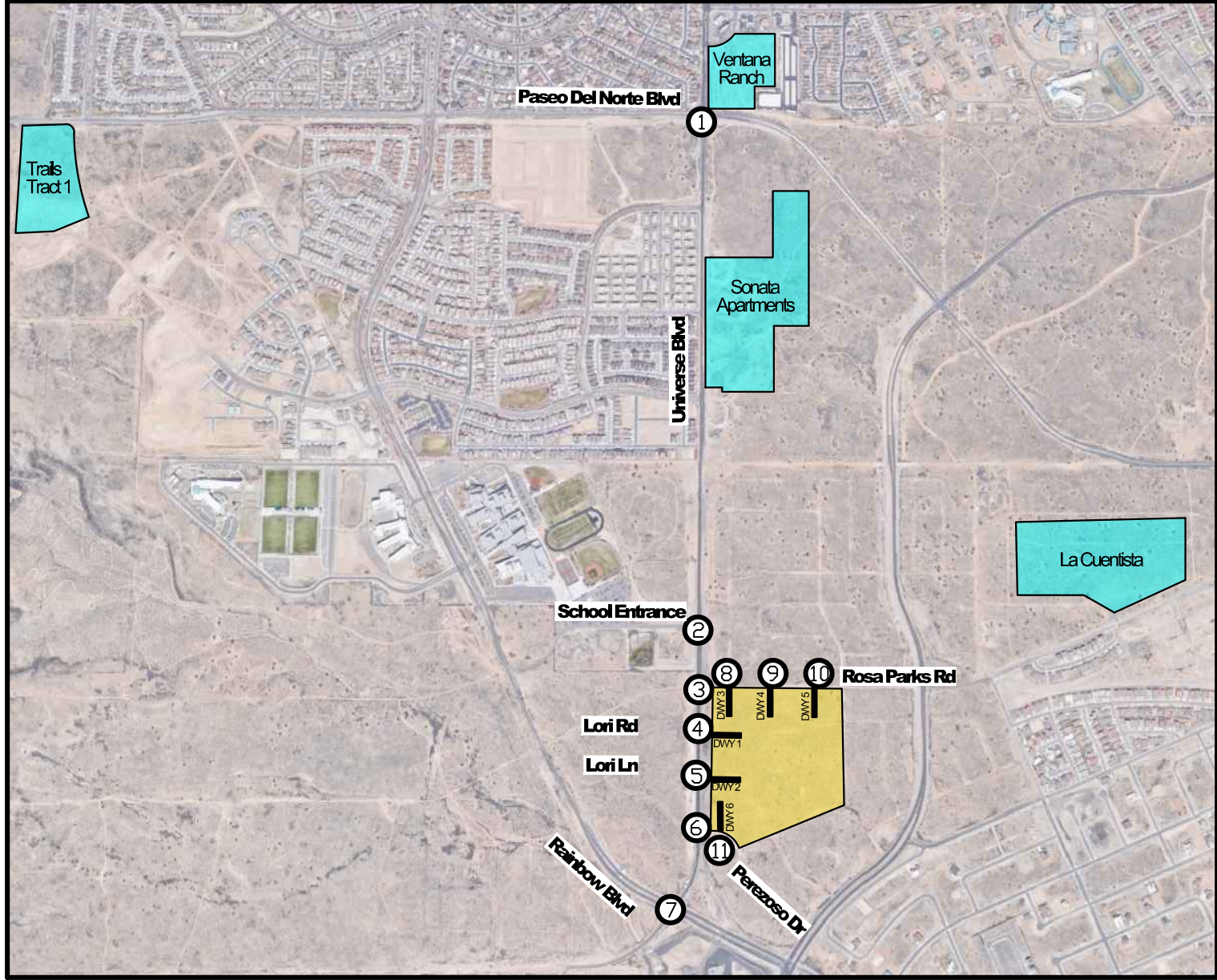
NOT TO SCALE



**Universe View Subdivision  
AM Peak Hour Generated Trips  
for Proposed Commercial Building**

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333 Rio Rancho Drive NE  
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www.huitt-zollars.com



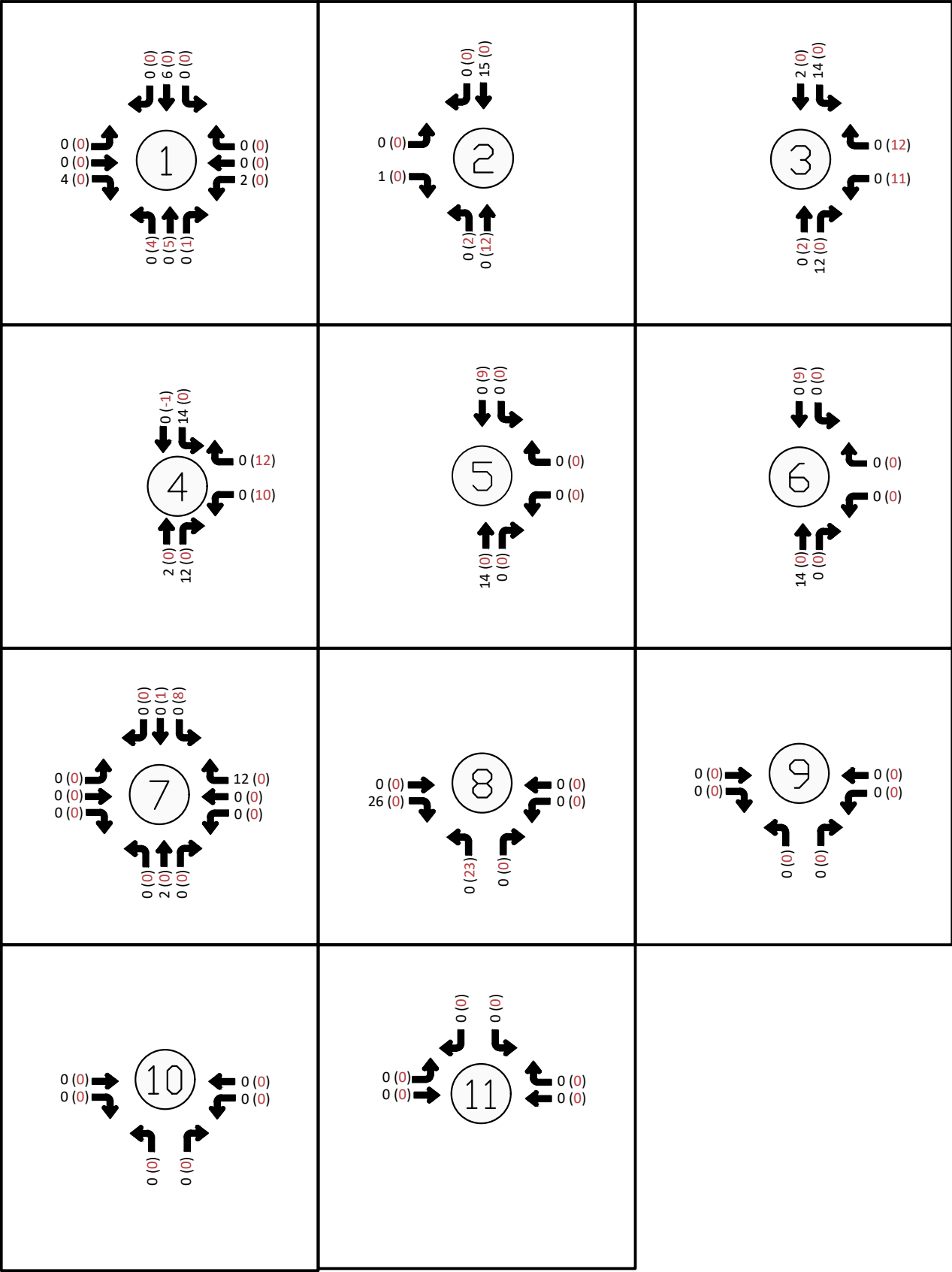


**Legend**

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY

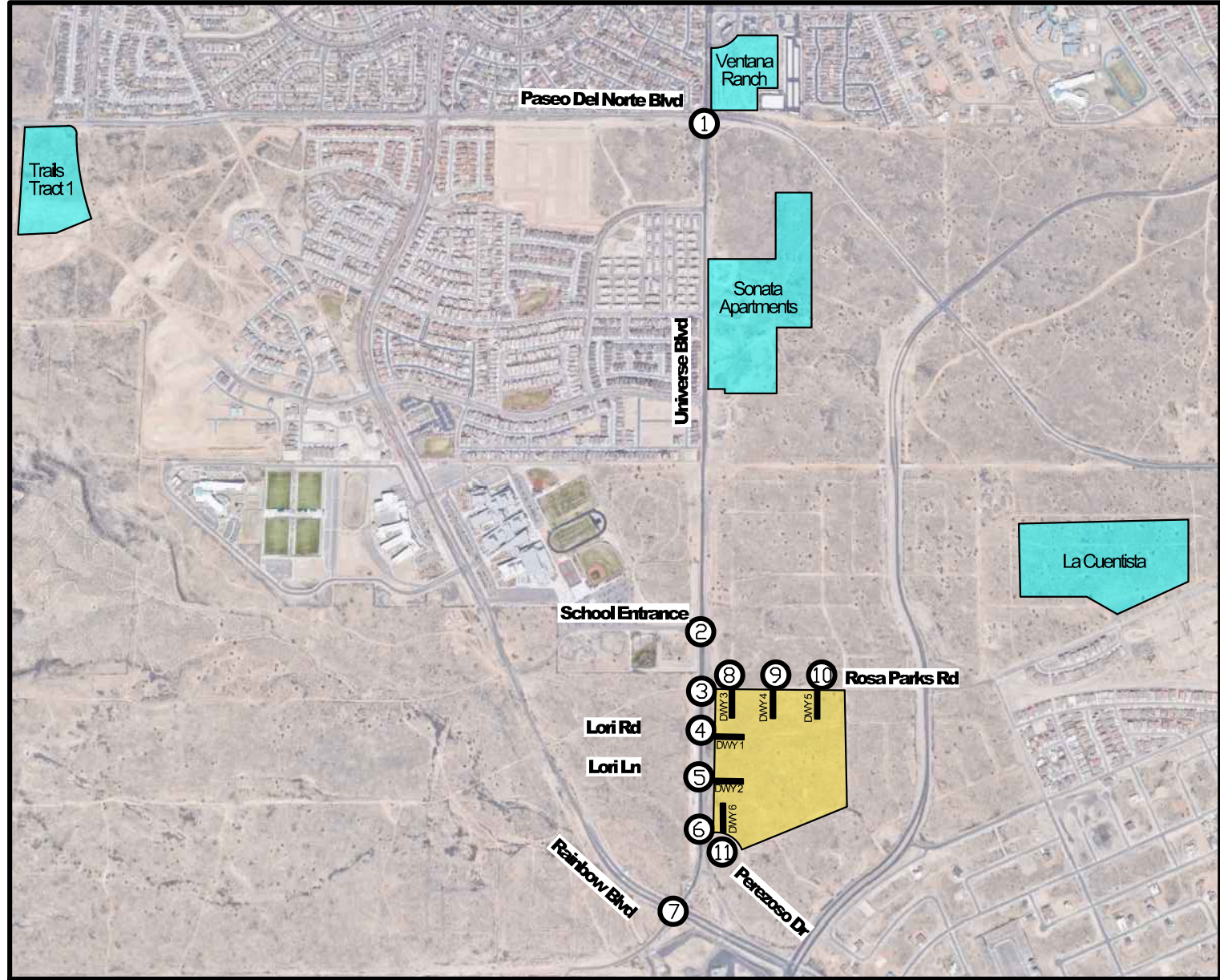


NOT TO SCALE



**Universe View Subdivision**  
**PM Peak Hour generated Trips**  
**for Proposed Commercial Building**



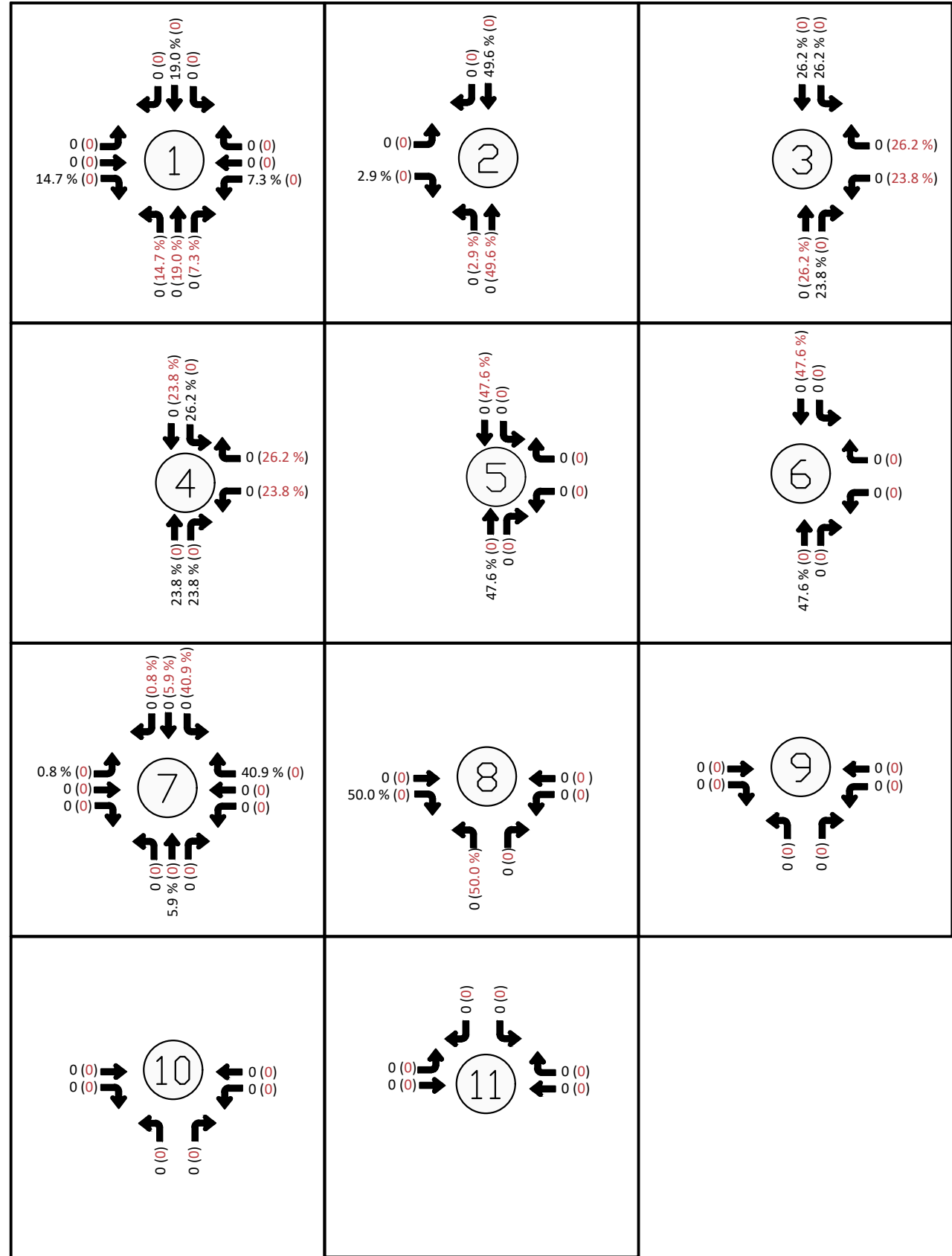


### Legend

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



NOT TO SCALE

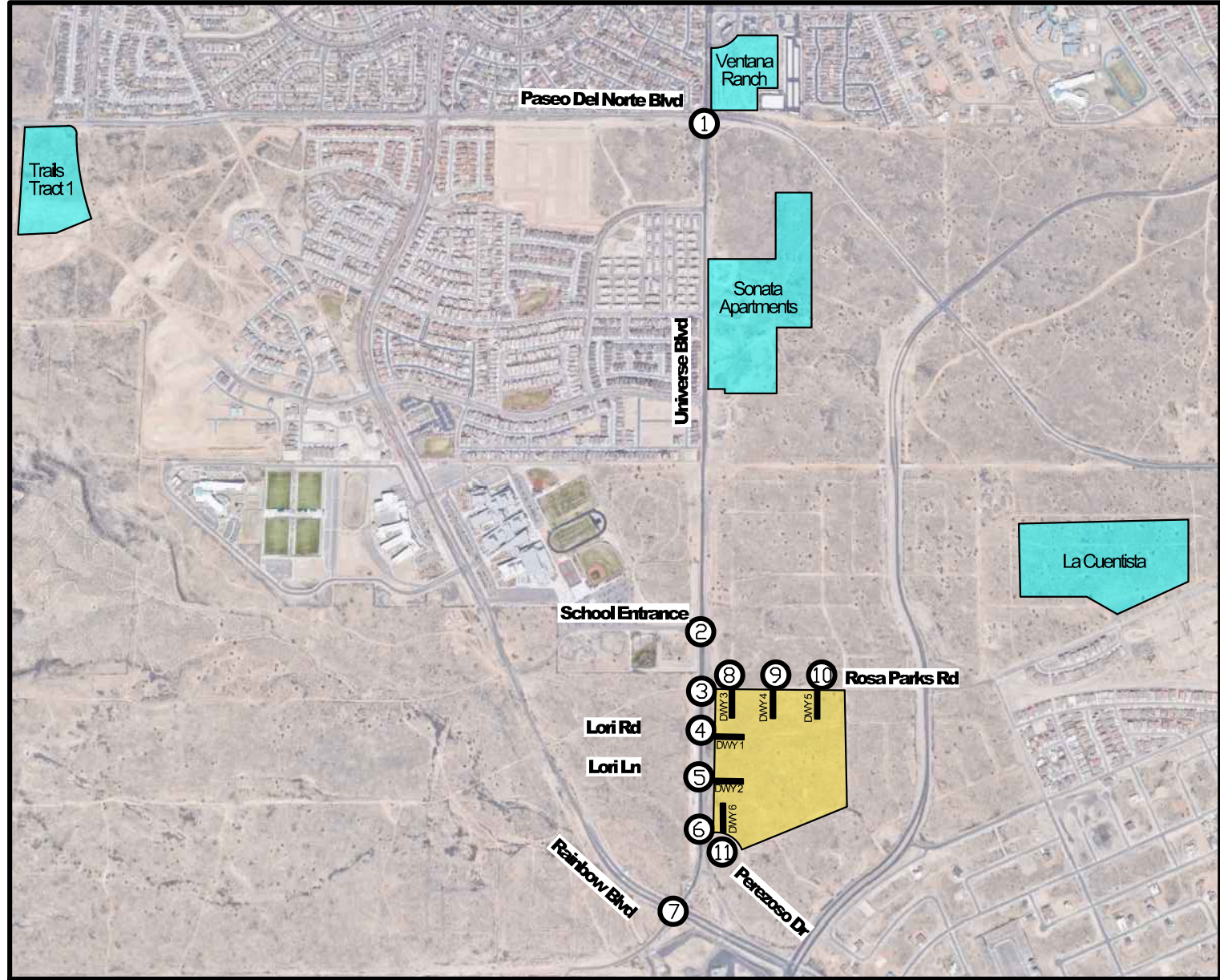


## Universe View Subdivision AM Peak Hour percent Distribution for Proposed Pharmacy

Figure  
Number  
**27**

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Firm No. F-761  
www.huitt-zollars.com



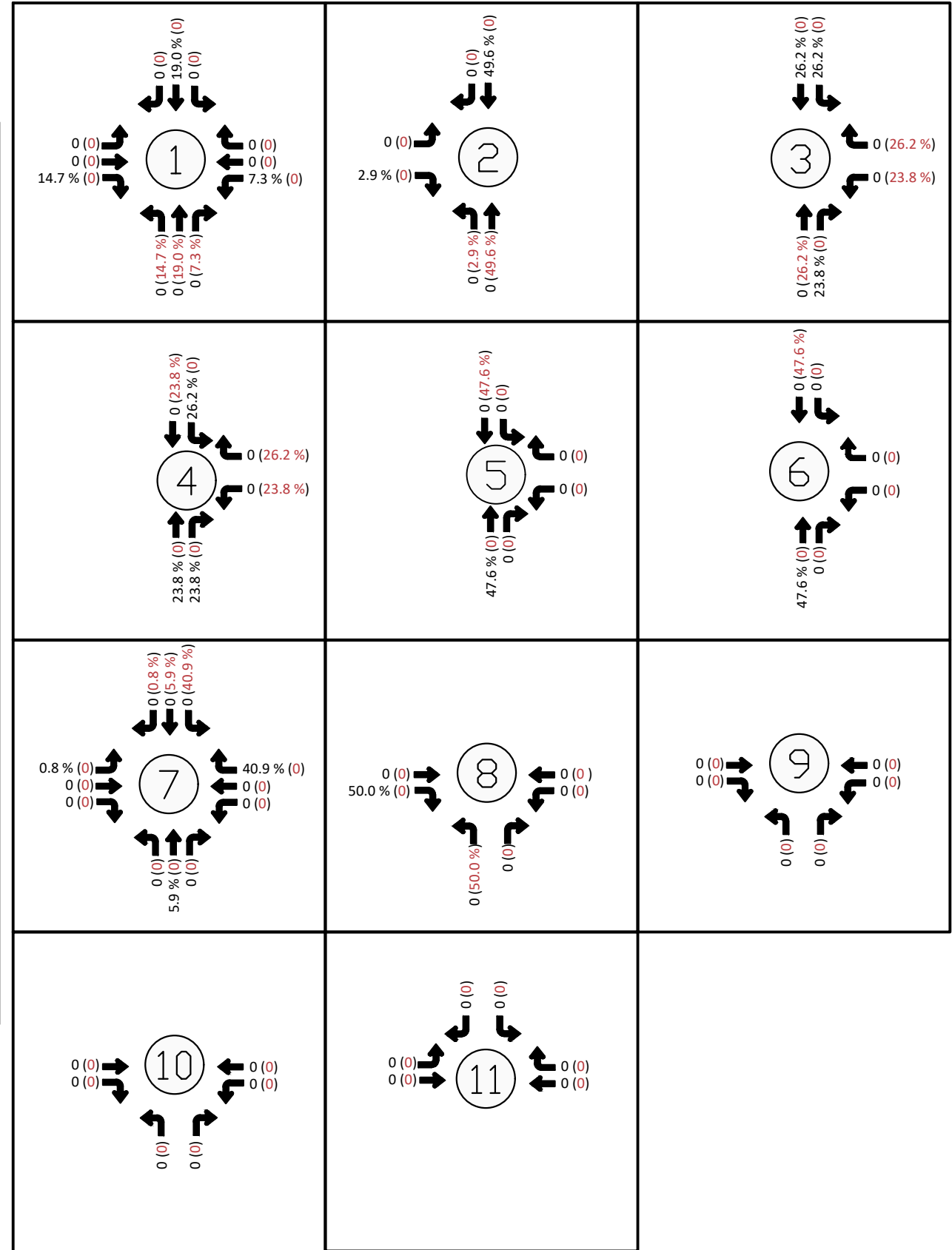


### Legend

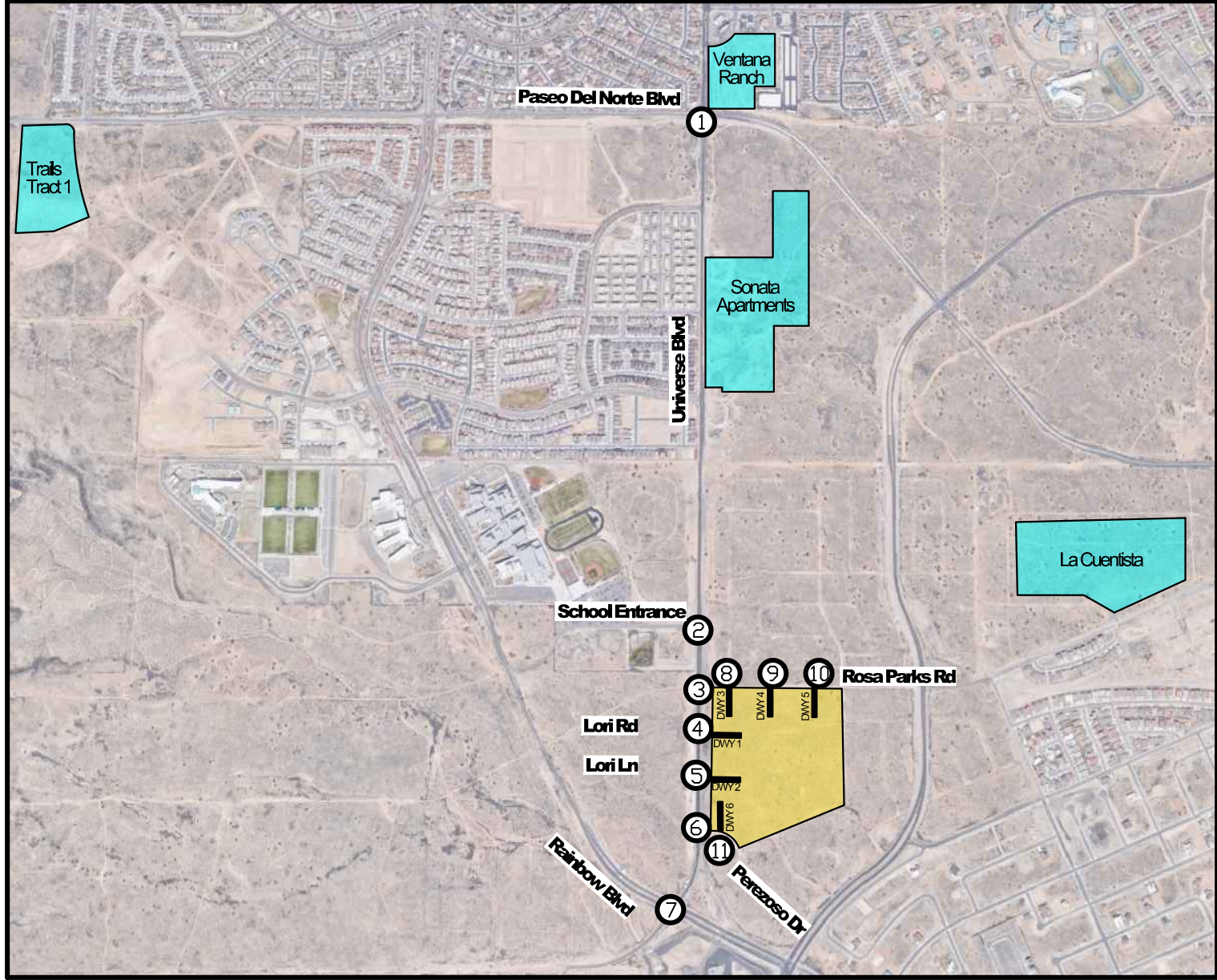
- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



NOT TO SCALE





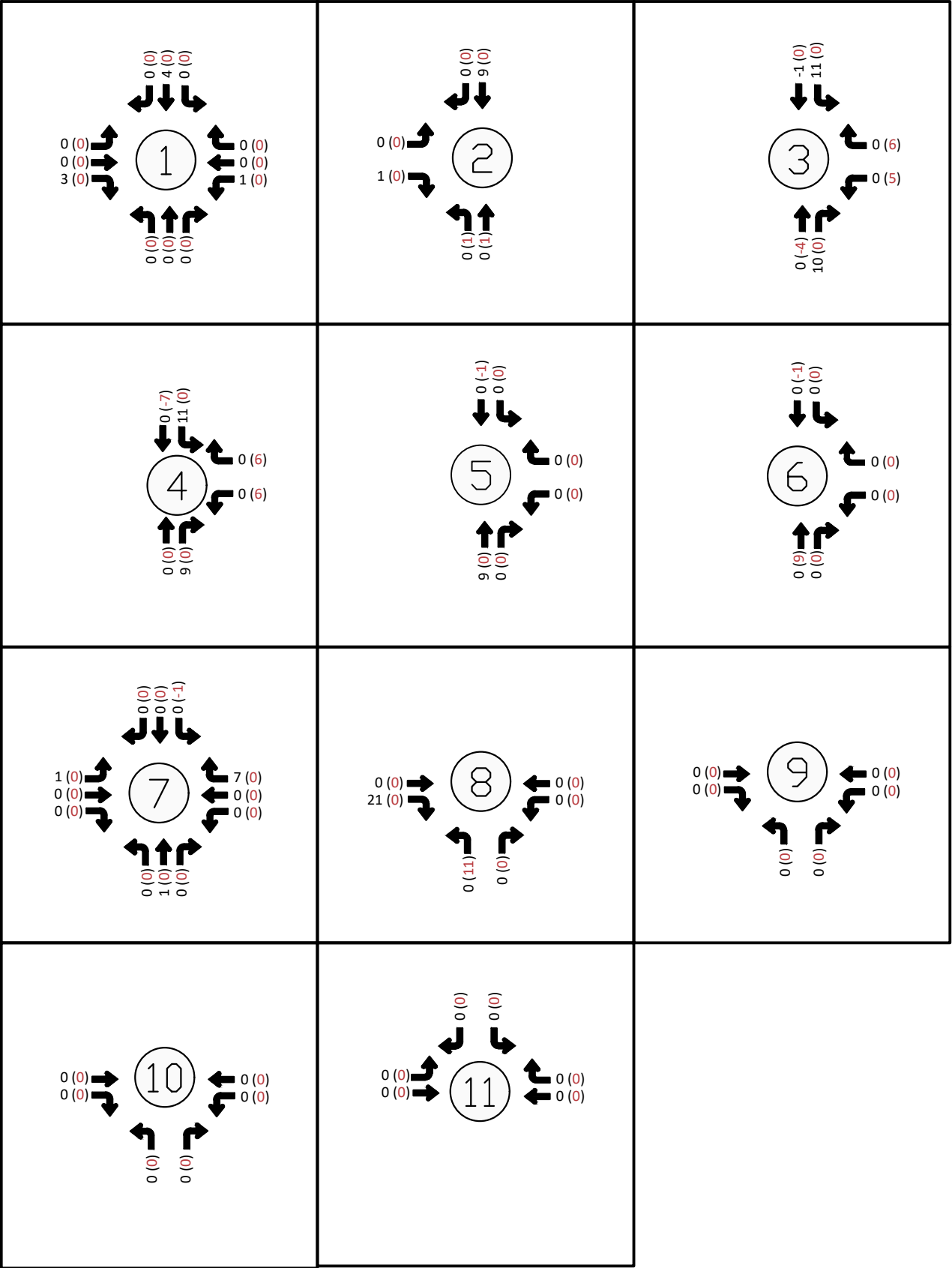


**Legend**

- # INTERSECTION NUMBER
- # (#) ENTERING (EXITING)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



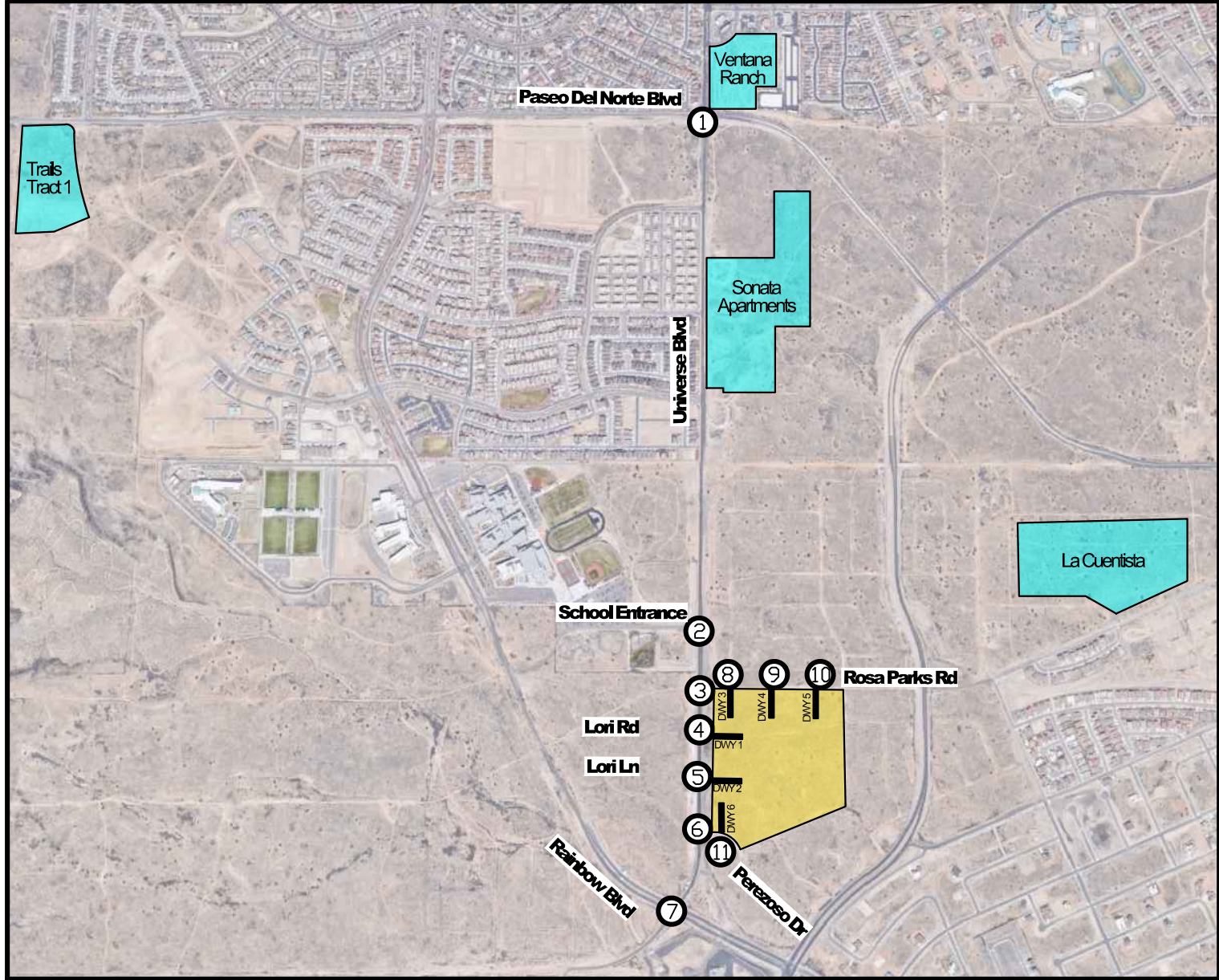
NOT TO SCALE











**Legend**

- # INTERSECTION NUMBER
- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



NOT TO SCALE

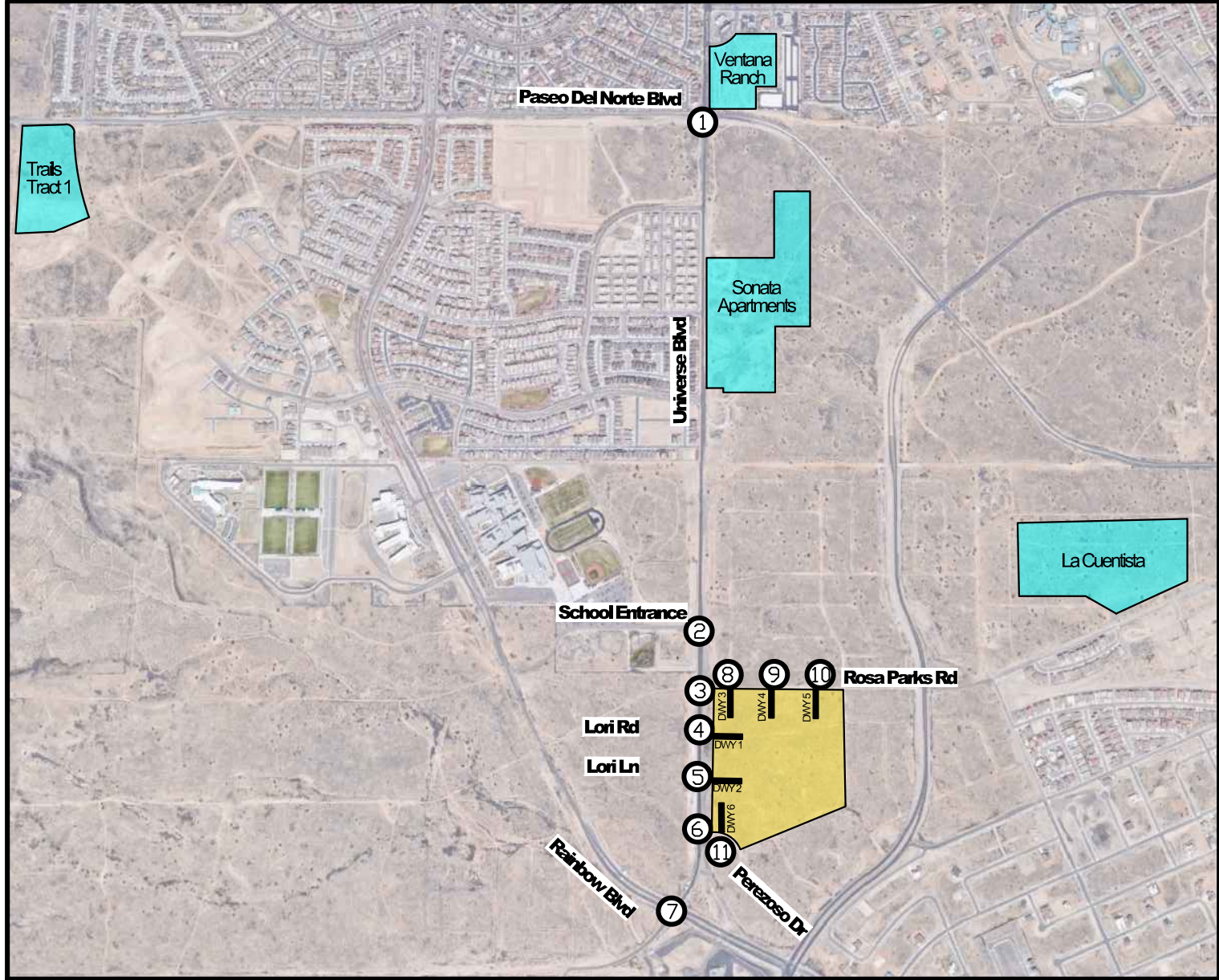
|                                                                                                                                                                                        |                                                                                            |                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <p>1</p> <p>160 (216)<br/>410 (286)<br/>60 (8)</p> <p>248 (268)<br/>470 (315)<br/>287 (148)</p> <p>12 (9)<br/>206 (365)<br/>173 (128)</p> <p>124 (297)<br/>180 (402)<br/>100 (181)</p> | <p>2</p> <p>12 (3)<br/>27 (7)</p> <p>129 (0)<br/>595 (307)</p> <p>57 (4)<br/>196 (489)</p> | <p>3</p> <p>229 (475)<br/>3 (6)</p> <p>610 (291)<br/>11 (22)</p> <p>24 (17)<br/>6 (4)</p> |
| <p>4</p> <p>232 (481)<br/>0 (0)</p> <p>616 (295)<br/>0 (0)</p> <p>0 (0)<br/>0 (0)</p>                                                                                                  | <p>5</p> <p>224 (475)<br/>7 (17)</p> <p>613 (287)<br/>3 (8)</p> <p>8 (6)<br/>17 (13)</p>   | <p>6</p> <p>231 (492)<br/>0 (0)</p> <p>630 (300)<br/>0 (0)</p> <p>0 (0)<br/>0 (0)</p>     |
| <p>7</p> <p>4 (4)<br/>459 (256)<br/>15 (11)</p> <p>17 (4)<br/>29 (48)<br/>585 (250)</p> <p>55 (11)<br/>43 (51)<br/>49 (36)</p> <p>185 (439)<br/>363 (392)<br/>11 (60)</p>              | <p>8</p> <p>14 (28)<br/>0 (0)</p> <p>0 (0)<br/>0 (0)</p> <p>30 (21)<br/>0 (0)</p>          | <p>9</p> <p>7 (14)<br/>7 (14)</p> <p>15 (11)<br/>0 (0)</p> <p>15 (10)<br/>0 (0)</p>       |
| <p>10</p> <p>0 (0)<br/>7 (14)</p> <p>15 (10)<br/>0 (0)</p> <p>0 (0)<br/>0 (0)</p>                                                                                                      | <p>11</p> <p>0 (0)<br/>0 (0)<br/>0 (0)</p> <p>0 (0)<br/>0 (0)<br/>0 (0)</p>                |                                                                                           |

**Universe View Subdivision**  
**Build 2023**  
**Turning Movement Counts**

**Figure**  
**Number**  
**31**

**HUITT-ZOLLARS**  
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Rio Rancho, New Mexico 87124  
505.892.5141  
Firm No. F-761  
www.huitt-zollars.com





**Legend**

- # INTERSECTION NUMBER
- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



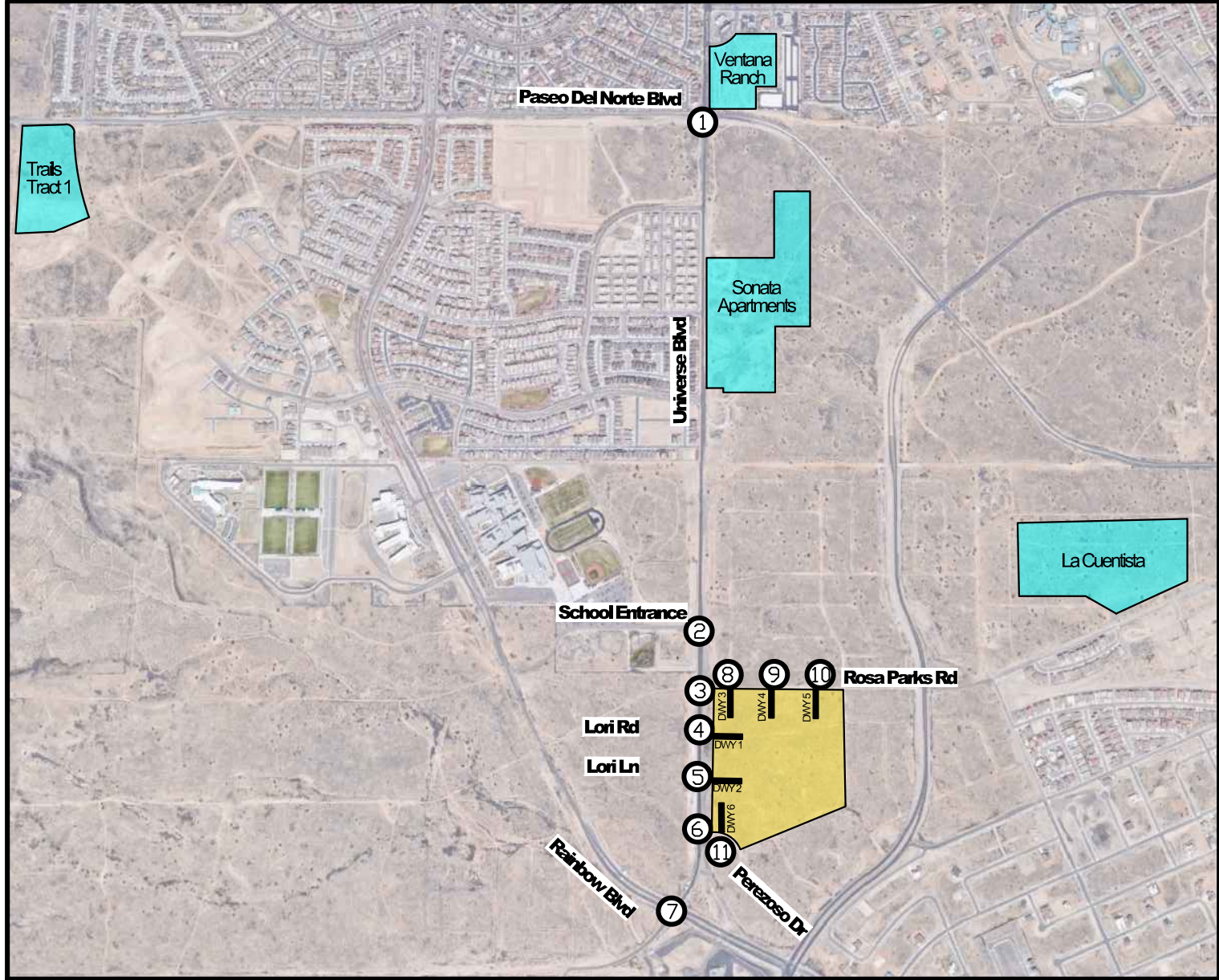
NOT TO SCALE

|                                                                                                                                                                                         |                                                                                              |                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <p>184 (247)<br/>438 (305)<br/>65 (9)</p> <p>1</p> <p>13 (10)<br/>229 (398)<br/>200 (143)</p> <p>276 (304)<br/>508 (345)<br/>317 (175)</p> <p>151 (366)<br/>199 (462)<br/>111 (202)</p> | <p>13 (3)<br/>30 (9)</p> <p>2</p> <p>64 (5)<br/>242 (538)</p> <p>138 (0)<br/>645 (349)</p>   | <p>281 (525)<br/>3 (6)<br/>24 (17)<br/>6 (4)</p> <p>3</p> <p>663 (336)<br/>11 (22)</p> |
| <p>665 (331)<br/>4 (9)</p> <p>4</p> <p>271 (525)<br/>3 (6)</p> <p>13 (6)<br/>9 (5)</p>                                                                                                  | <p>666 (296)<br/>0 (19)</p> <p>5</p> <p>248 (484)<br/>11 (26)</p> <p>26 (14)<br/>30 (19)</p> | <p>694 (332)<br/>2 (4)</p> <p>6</p> <p>254 (540)<br/>1 (3)</p> <p>5 (3)<br/>4 (1)</p>  |
| <p>20 (5)<br/>33 (53)<br/>646 (276)</p> <p>7</p> <p>59 (11)<br/>47 (56)<br/>52 (38)</p> <p>5 (5)<br/>487 (272)<br/>16 (11)</p> <p>204 (483)<br/>386 (415)<br/>11 (64)</p>               | <p>14 (28)<br/>0 (7)</p> <p>8</p> <p>0 (0)<br/>0 (0)</p> <p>30 (21)<br/>0 (0)</p>            | <p>7 (14)<br/>7 (14)</p> <p>9</p> <p>15 (11)<br/>0 (0)</p> <p>15 (10)<br/>0 (0)</p>    |
| <p>0 (0)<br/>7 (14)</p> <p>10</p> <p>15 (10)<br/>0 (0)</p> <p>0 (0)<br/>0 (0)</p>                                                                                                       | <p>3 (7)<br/>0 (0)</p> <p>11</p> <p>0 (0)<br/>0 (0)</p> <p>9 (4)<br/>0 (0)</p>               |                                                                                        |

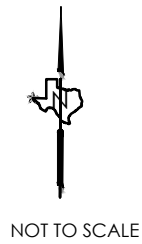
**Universe View Subdivision  
Build 2025  
Turning Movement Counts**

**HUITT-ZOLLARS**  
333 Rio Rancho Drive NE  
Suite 101  
Rio Rancho, New Mexico 87124  
505.892.5141  
Firm No. F-761  
www.huitt-zollars.com





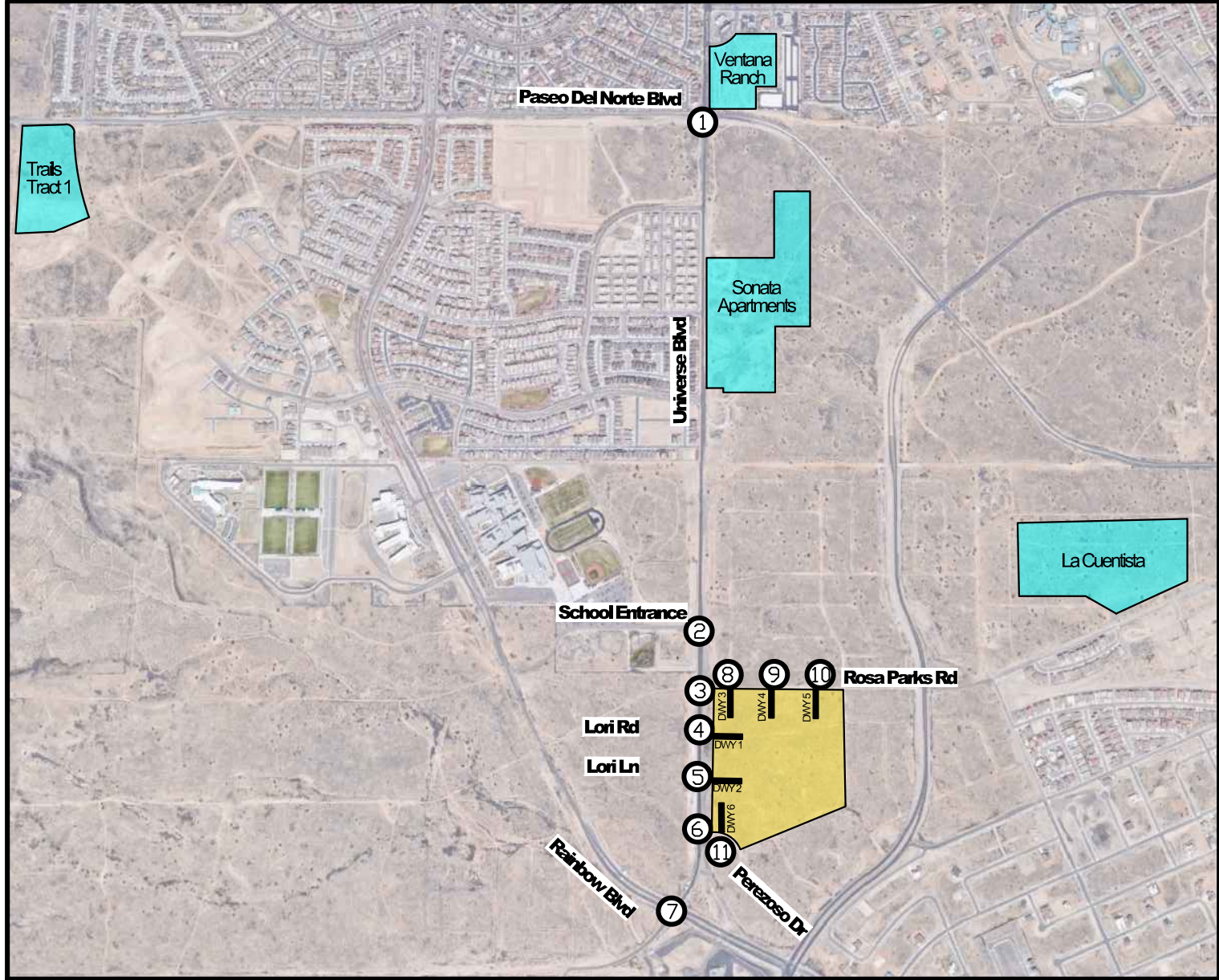
- Legend**
- # INTERSECTION NUMBER
  - # (#) AM (PM)
  - VOLCANO CLIFF SUBDIVISION
  - PROPOSED DEVELOPMENTS
  - DWY DRIVEWAY



|                                                                                                                                                                                           |                                                                                              |                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <p>1</p> <p>193 (259)<br/>458 (319)<br/>74 (16)</p> <p>290 (319)<br/>542 (374)<br/>334 (183)</p> <p>14 (17)<br/>242 (428)<br/>206 (150)</p> <p>159 (384)<br/>208 (481)<br/>1117 (212)</p> | <p>2</p> <p>13 (3)<br/>33 (11)</p> <p>145 (0)<br/>693 (391)</p> <p>68 (10)<br/>254 (586)</p> | <p>3</p> <p>288 (554)<br/>19 (30)</p> <p>698 (351)<br/>28 (50)</p> <p>34 (42)<br/>15 (26)</p> |
| <p>4</p> <p>284 (553)<br/>18 (30)</p> <p>692 (340)<br/>21 (37)</p> <p>23 (31)<br/>19 (26)</p>                                                                                             | <p>5</p> <p>376 (569)<br/>11 (26)</p> <p>703 (347)<br/>8 (19)</p> <p>26 (14)<br/>30 (19)</p> | <p>6</p> <p>282 (592)<br/>1 (3)</p> <p>731 (362)<br/>2 (4)</p> <p>5 (3)<br/>4 (1)</p>         |
| <p>7</p> <p>511 (285)<br/>17 (12)</p> <p>21 (5)<br/>36 (58)<br/>679 (302)</p> <p>62 (12)<br/>52 (62)<br/>55 (40)</p> <p>225 (528)<br/>407 (435)<br/>12 (68)</p>                           | <p>8</p> <p>14 (28)<br/>33 (52)</p> <p>19 (47)<br/>8 (0)</p> <p>30 (21)<br/>0 (0)</p>        | <p>9</p> <p>7 (14)<br/>7 (14)</p> <p>15 (11)<br/>0 (0)</p> <p>15 (10)<br/>0 (0)</p>           |
| <p>10</p> <p>0 (0)<br/>7 (14)</p> <p>15 (10)<br/>0 (0)</p> <p>0 (0)<br/>0 (0)</p>                                                                                                         | <p>11</p> <p>3 (7)<br/>0 (0)</p> <p>9 (4)<br/>0 (0)</p> <p>0 (0)<br/>0 (0)</p>               |                                                                                               |

**Universe View Subdivision**  
**Build 2027**  
**Turning Movement Counts**



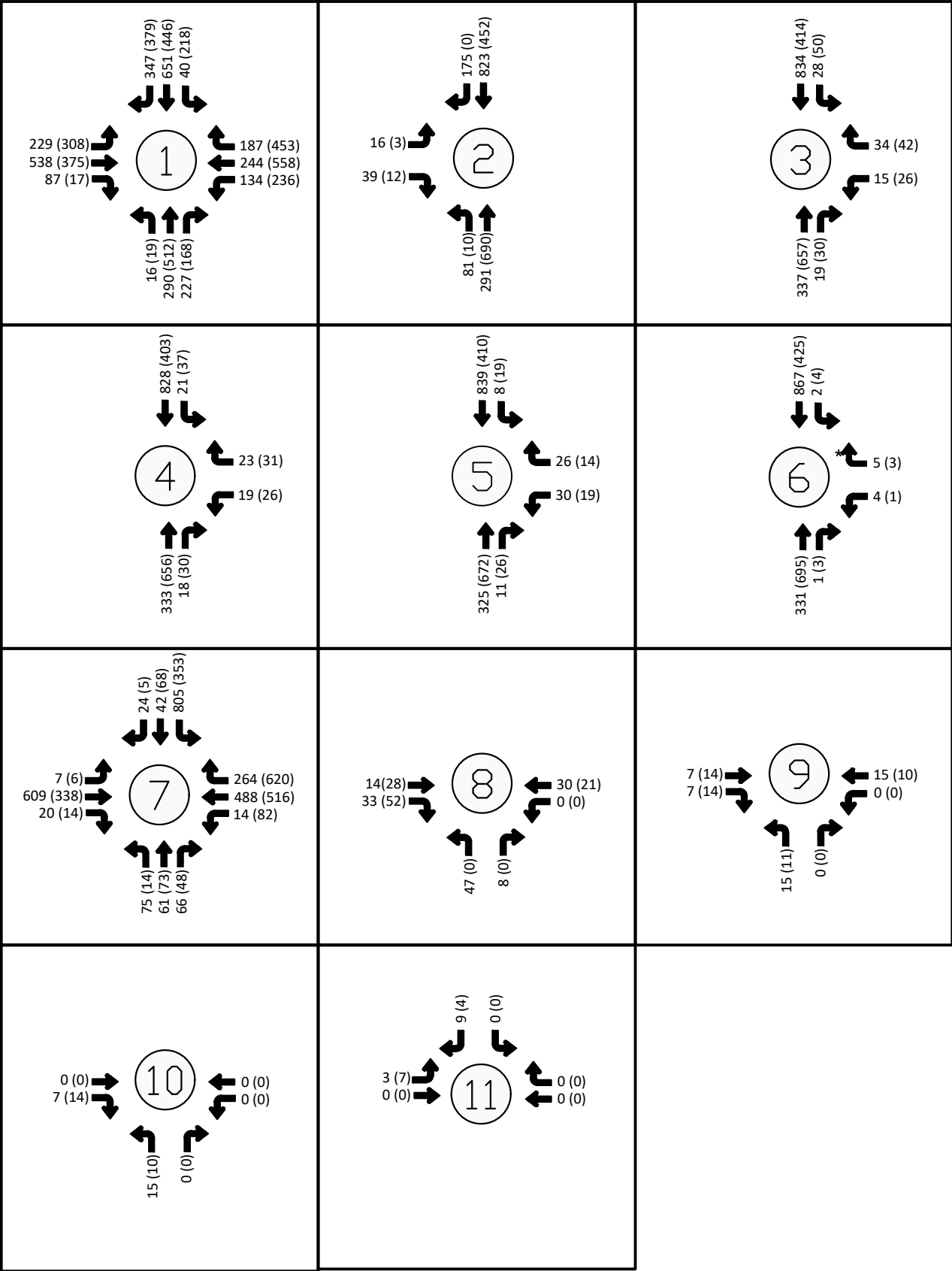


**Legend**

- # INTERSECTION NUMBER
- # (#) AM (PM)
- VOLCANO CLIFF SUBDIVISION
- PROPOSED DEVELOPMENTS
- DWY DRIVEWAY



NOT TO SCALE



**Universe View Subdivision**  
**2033 Build**  
**Turning Movement Counts**

**HUITT-ZOLLARS**  
333 Rio Rancho Drive NE  
Suite 101  
Rio Rancho, New Mexico 87124  
905.892.5141  
Firm No. F-761  
www.huitt-zollars.com

# **APPENDIX C**

## **Existing 2022 Traffic Movement Counts**



# Huitt-Zollars, Inc.

333 Rio Rancho Drive NW, Suite 101  
Rio Rancho, NM 87124  
ADVANCEDESIGN

Weather: sunny  
Serial Number: TU-3082 & TU-3080  
Collected By: LB & JS  
Other:

File Name : COMBINED UNV-PDN\_03-16-22\_0  
Site Code : 00000000  
Start Date : 3/16/2022  
Page No : 1

## Groups Printed- Unshifted

| Start Time    | UNIVERSE<br>From North |      |      |      | PASEO DEL NORTE<br>From East |      |      |      | UNIVERSE<br>From South |      |      |      | PASEO DEL NORTE<br>From West |      |      |      | Int. Total |
|---------------|------------------------|------|------|------|------------------------------|------|------|------|------------------------|------|------|------|------------------------------|------|------|------|------------|
|               | Right                  | Thru | Left | Peds | Right                        | Thru | Left | Peds | Right                  | Thru | Left | Peds | Right                        | Thru | Left | Peds |            |
| 07:00 AM      | 44                     | 123  | 80   | 0    | 13                           | 28   | 29   | 0    | 23                     | 31   | 2    | 0    | 18                           | 102  | 30   | 0    | 523        |
| 07:15 AM      | 61                     | 145  | 76   | 0    | 26                           | 29   | 22   | 0    | 38                     | 49   | 5    | 0    | 15                           | 90   | 34   | 0    | 590        |
| 07:30 AM      | 65                     | 98   | 72   | 0    | 40                           | 40   | 9    | 0    | 19                     | 55   | 1    | 0    | 11                           | 77   | 40   | 0    | 527        |
| 07:45 AM      | 67                     | 89   | 50   | 0    | 41                           | 55   | 11   | 0    | 9                      | 63   | 1    | 0    | 13                           | 64   | 44   | 0    | 507        |
| Total         | 237                    | 455  | 278  | 0    | 120                          | 152  | 71   | 0    | 89                     | 198  | 9    | 0    | 57                           | 333  | 148  | 0    | 2147       |
| 08:00 AM      | 54                     | 90   | 63   | 0    | 42                           | 48   | 15   | 0    | 25                     | 44   | 3    | 0    | 13                           | 70   | 36   | 0    | 503        |
| 08:15 AM      | 41                     | 56   | 53   | 0    | 31                           | 36   | 13   | 0    | 23                     | 34   | 0    | 0    | 5                            | 74   | 35   | 0    | 401        |
| 08:30 AM      | 22                     | 52   | 67   | 0    | 36                           | 34   | 8    | 0    | 18                     | 42   | 1    | 0    | 8                            | 77   | 28   | 0    | 393        |
| 08:45 AM      | 20                     | 44   | 48   | 0    | 46                           | 33   | 7    | 0    | 15                     | 49   | 1    | 0    | 1                            | 63   | 36   | 0    | 363        |
| Total         | 137                    | 242  | 231  | 0    | 155                          | 151  | 43   | 0    | 81                     | 169  | 5    | 0    | 27                           | 284  | 135  | 0    | 1660       |
| *** BREAK *** |                        |      |      |      |                              |      |      |      |                        |      |      |      |                              |      |      |      |            |
| 04:00 PM      | 40                     | 82   | 42   | 0    | 69                           | 64   | 22   | 0    | 10                     | 78   | 0    | 0    | 4                            | 59   | 39   | 0    | 509        |
| 04:15 PM      | 49                     | 74   | 47   | 2    | 66                           | 76   | 18   | 0    | 21                     | 68   | 6    | 0    | 1                            | 66   | 39   | 0    | 533        |
| 04:30 PM      | 52                     | 57   | 27   | 1    | 82                           | 76   | 21   | 0    | 25                     | 75   | 3    | 0    | 2                            | 56   | 44   | 0    | 521        |
| 04:45 PM      | 59                     | 93   | 32   | 2    | 76                           | 84   | 31   | 0    | 15                     | 80   | 2    | 0    | 1                            | 52   | 50   | 0    | 577        |
| Total         | 200                    | 306  | 148  | 5    | 293                          | 300  | 92   | 0    | 71                     | 301  | 11   | 0    | 8                            | 233  | 172  | 0    | 2140       |
| 05:00 PM      | 63                     | 80   | 45   | 0    | 71                           | 79   | 23   | 0    | 15                     | 84   | 2    | 0    | 2                            | 60   | 45   | 0    | 569        |
| 05:15 PM      | 66                     | 64   | 31   | 1    | 74                           | 70   | 26   | 0    | 22                     | 84   | 0    | 1    | 1                            | 72   | 70   | 0    | 582        |
| 05:30 PM      | 64                     | 65   | 35   | 1    | 67                           | 88   | 19   | 0    | 23                     | 103  | 2    | 0    | 1                            | 50   | 39   | 0    | 557        |
| 05:45 PM      | 64                     | 77   | 46   | 0    | 67                           | 66   | 22   | 0    | 20                     | 83   | 5    | 0    | 3                            | 59   | 53   | 0    | 565        |
| Total         | 257                    | 286  | 157  | 2    | 279                          | 303  | 90   | 0    | 80                     | 354  | 9    | 1    | 7                            | 241  | 207  | 0    | 2273       |
| Grand Total   | 831                    | 1289 | 814  | 7    | 847                          | 906  | 296  | 0    | 321                    | 1022 | 34   | 1    | 99                           | 1091 | 662  | 0    | 8220       |
| Apprch %      | 28.3                   | 43.8 | 27.7 | 0.2  | 41.3                         | 44.2 | 14.4 | 0    | 23.3                   | 74.2 | 2.5  | 0.1  | 5.3                          | 58.9 | 35.7 | 0    |            |
| Total %       | 10.1                   | 15.7 | 9.9  | 0.1  | 10.3                         | 11   | 3.6  | 0    | 3.9                    | 12.4 | 0.4  | 0    | 1.2                          | 13.3 | 8.1  | 0    |            |

# Huitt-Zollars, Inc.

333 Rio Rancho Drive NW, Suite 101

Rio Rancho, NM 87124

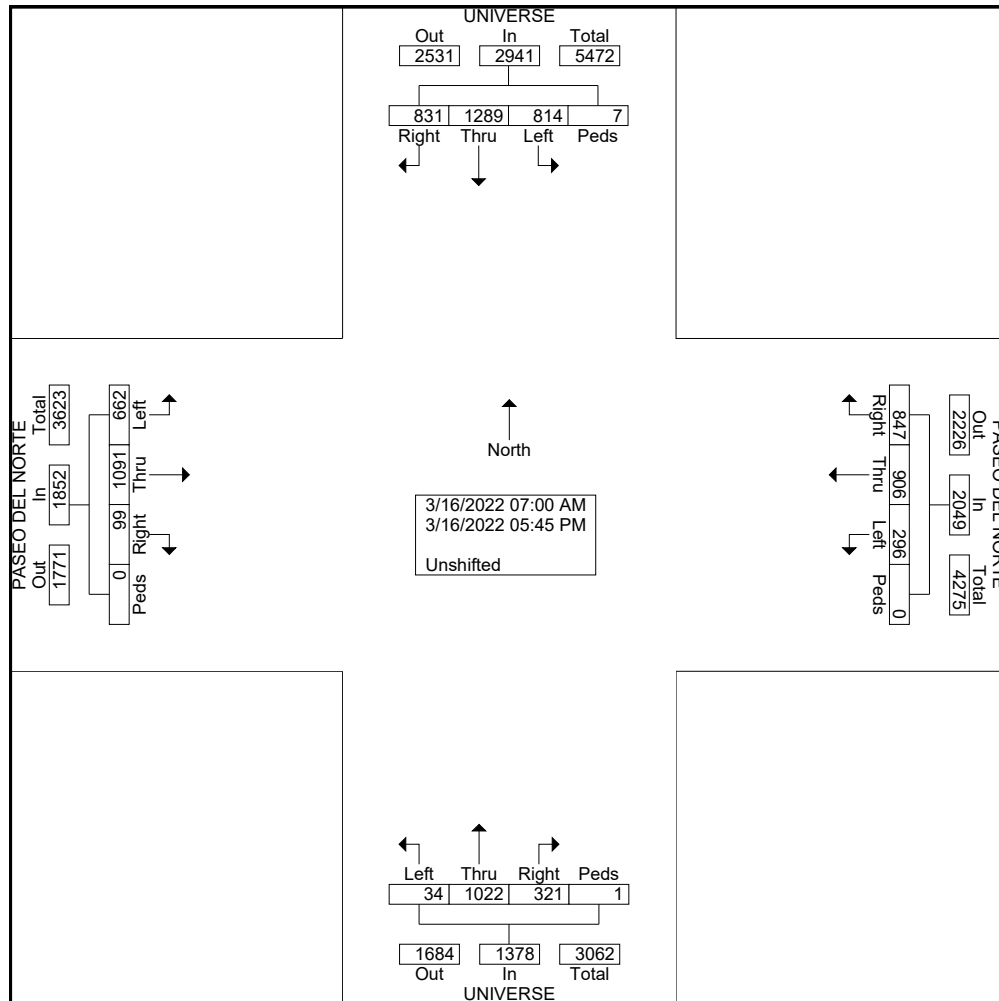
ADVANCEDESIGN

File Name : COMBINED UNV-PDN\_03-16-22\_0

Site Code : 00000000

Start Date : 3/16/2022

Page No : 2

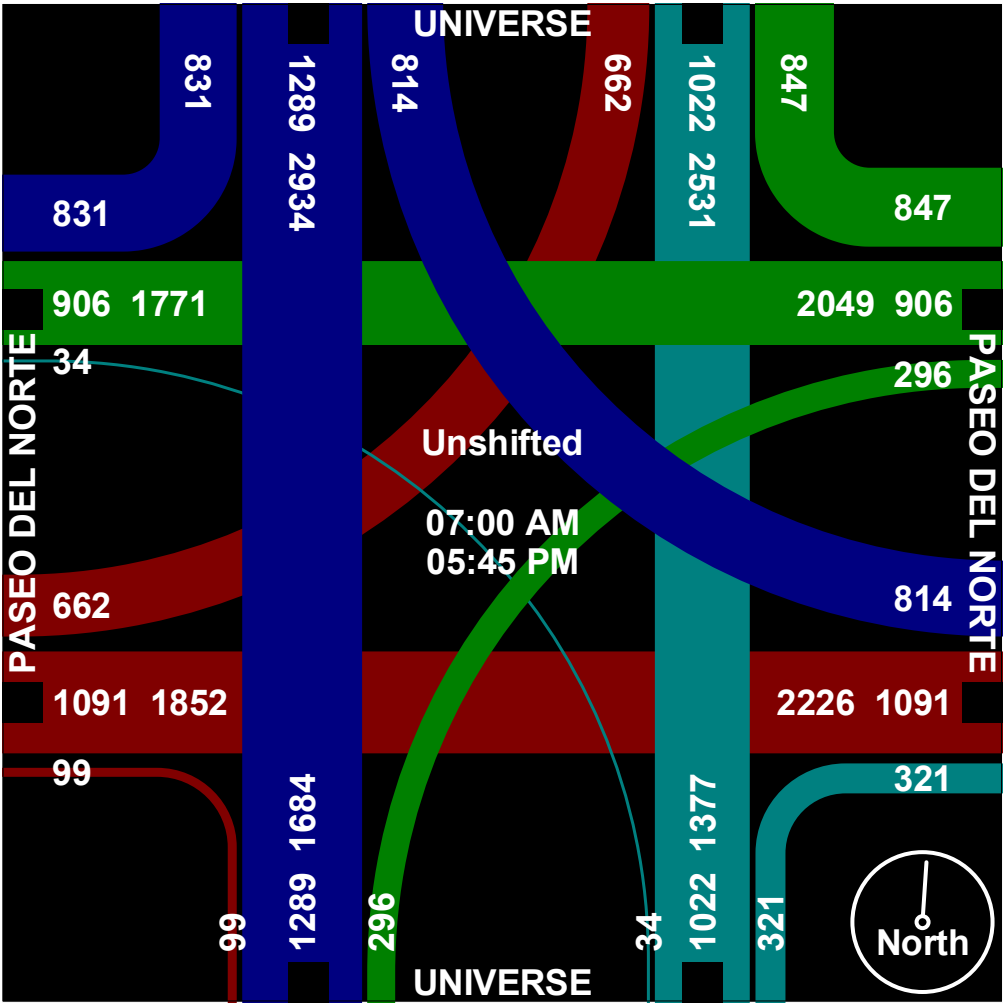




# Huitt-Zollars, Inc.

333 Rio Rancho Drive NW, Suite 101  
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*ADVANCEDESIGN*

File Name : COMBINED UNV-PDN\_03-16-22\_0  
Site Code : 00000000  
Start Date : 3/16/2022  
Page No : 3



# Huitt-Zollars, Inc.

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ADVANCEDESIGN

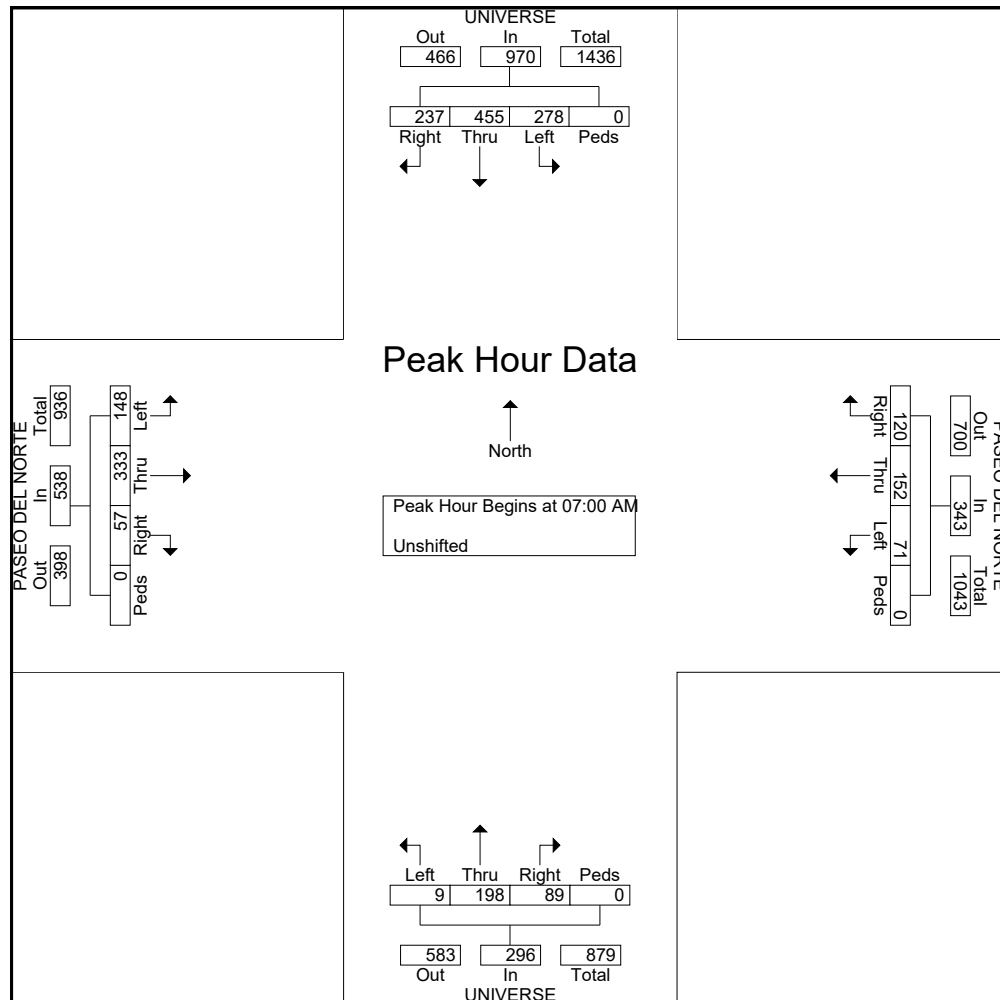
File Name : COMBINED UNV-PDN\_03-16-22\_0

Site Code : 00000000

Start Date : 3/16/2022

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|                                                            | UNIVERSE<br>From North |      |      |      |            | PASEO DEL NORTE<br>From East |      |      |      |            | UNIVERSE<br>From South |      |      |      |            | PASEO DEL NORTE<br>From West |      |      |      |            |            |
|------------------------------------------------------------|------------------------|------|------|------|------------|------------------------------|------|------|------|------------|------------------------|------|------|------|------------|------------------------------|------|------|------|------------|------------|
| Start Time                                                 | Right                  | Thru | Left | Peds | App. Total | Right                        | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right                        | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1 |                        |      |      |      |            |                              |      |      |      |            |                        |      |      |      |            |                              |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 07:00 AM       |                        |      |      |      |            |                              |      |      |      |            |                        |      |      |      |            |                              |      |      |      |            |            |
| 07:00 AM                                                   | 44                     | 123  | 80   | 0    | 247        | 13                           | 28   | 29   | 0    | 70         | 23                     | 31   | 2    | 0    | 56         | 18                           | 102  | 30   | 0    | 150        | 523        |
| 07:15 AM                                                   | 61                     | 145  | 76   | 0    | 282        | 26                           | 29   | 22   | 0    | 77         | 38                     | 49   | 5    | 0    | 92         | 15                           | 90   | 34   | 0    | 139        | 590        |
| 07:30 AM                                                   | 65                     | 98   | 72   | 0    | 235        | 40                           | 40   | 9    | 0    | 89         | 19                     | 55   | 1    | 0    | 75         | 11                           | 77   | 40   | 0    | 128        | 527        |
| 07:45 AM                                                   | 67                     | 89   | 50   | 0    | 206        | 41                           | 55   | 11   | 0    | 107        | 9                      | 63   | 1    | 0    | 73         | 13                           | 64   | 44   | 0    | 121        | 507        |
| Total Volume                                               | 237                    | 455  | 278  | 0    | 970        | 120                          | 152  | 71   | 0    | 343        | 89                     | 198  | 9    | 0    | 296        | 57                           | 333  | 148  | 0    | 538        | 2147       |
| % App. Total                                               | 24.4                   | 46.9 | 28.7 | 0    |            | 35                           | 44.3 | 20.7 | 0    |            | 30.1                   | 66.9 | 3    | 0    |            | 10.6                         | 61.9 | 27.5 | 0    |            |            |
| PHF                                                        | .884                   | .784 | .869 | .000 | .860       | .732                         | .691 | .612 | .000 | .801       | .586                   | .786 | .450 | .000 | .804       | .792                         | .816 | .841 | .000 | .897       | .910       |





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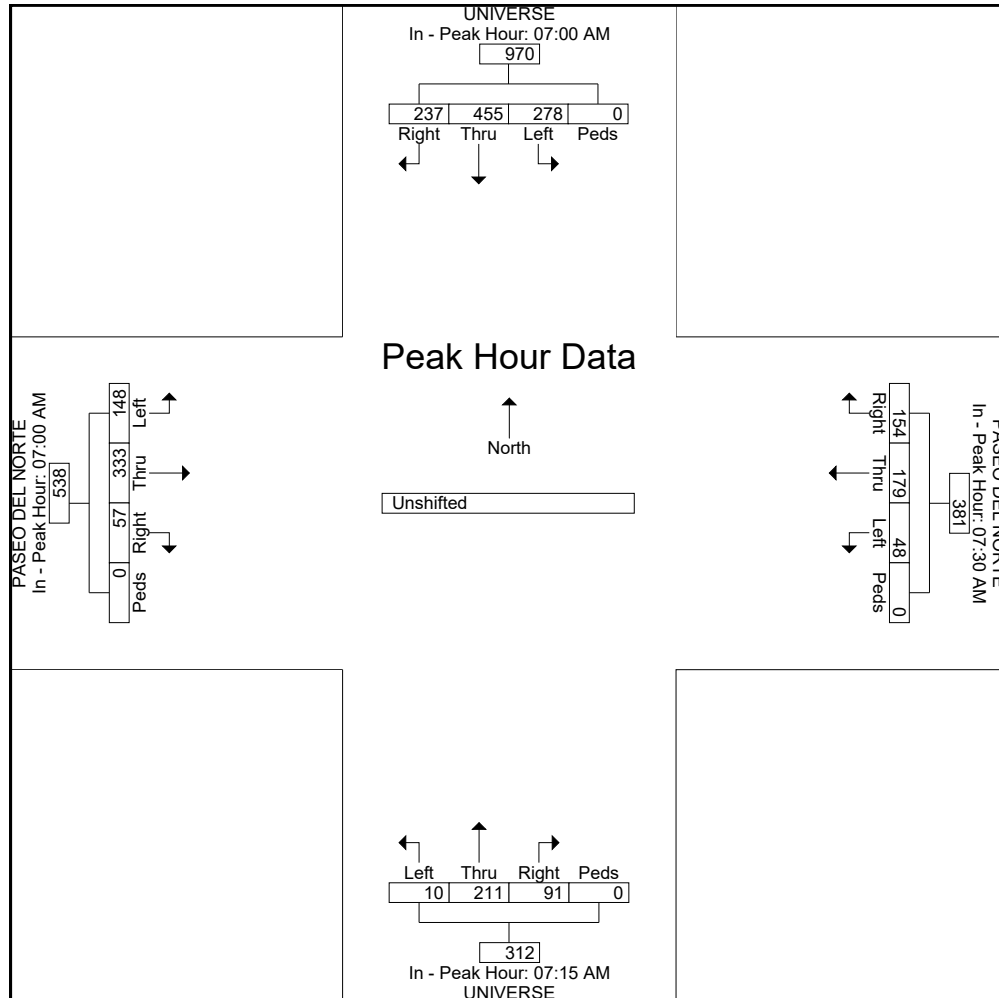
File Name : COMBINED UNV-PDN\_03-16-22\_0

Site Code : 00000000

Start Date : 3/16/2022

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|                                                            | UNIVERSE<br>From North |      |      |      |            | PASEO DEL NORTE<br>From East |      |      |      |            | UNIVERSE<br>From South |      |      |      |            | PASEO DEL NORTE<br>From West |      |      |      |            |            |
|------------------------------------------------------------|------------------------|------|------|------|------------|------------------------------|------|------|------|------------|------------------------|------|------|------|------------|------------------------------|------|------|------|------------|------------|
| Start Time                                                 | Right                  | Thru | Left | Peds | App. Total | Right                        | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right                        | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1 |                        |      |      |      |            |                              |      |      |      |            |                        |      |      |      |            |                              |      |      |      |            |            |
| Peak Hour for Each Approach Begins at:                     |                        |      |      |      |            |                              |      |      |      |            |                        |      |      |      |            |                              |      |      |      |            |            |
|                                                            | 07:00 AM               |      |      |      |            | 07:30 AM                     |      |      |      |            | 07:15 AM               |      |      |      |            | 07:00 AM                     |      |      |      |            |            |
| +0 mins.                                                   | 44                     | 123  | 80   | 0    | 247        | 40                           | 40   | 9    | 0    | 89         | 38                     | 49   | 5    | 0    | 92         | 18                           | 102  | 30   | 0    | 150        |            |
| +15 mins.                                                  | 61                     | 145  | 76   | 0    | 282        | 41                           | 55   | 11   | 0    | 107        | 19                     | 55   | 1    | 0    | 75         | 15                           | 90   | 34   | 0    | 139        |            |
| +30 mins.                                                  | 65                     | 98   | 72   | 0    | 235        | 42                           | 48   | 15   | 0    | 105        | 9                      | 63   | 1    | 0    | 73         | 11                           | 77   | 40   | 0    | 128        |            |
| +45 mins.                                                  | 67                     | 89   | 50   | 0    | 206        | 31                           | 36   | 13   | 0    | 80         | 25                     | 44   | 3    | 0    | 72         | 13                           | 64   | 44   | 0    | 121        |            |
| Total Volume                                               | 237                    | 455  | 278  | 0    | 970        | 154                          | 179  | 48   | 0    | 381        | 91                     | 211  | 10   | 0    | 312        | 57                           | 333  | 148  | 0    | 538        |            |
| % App. Total                                               | 24.4                   | 46.9 | 28.7 | 0    |            | 40.4                         | 47   | 12.6 | 0    |            | 29.2                   | 67.6 | 3.2  | 0    |            | 10.6                         | 61.9 | 27.5 | 0    |            |            |
| PHF                                                        | .884                   | .784 | .869 | .000 | .860       | .917                         | .814 | .800 | .000 | .890       | .599                   | .837 | .500 | .000 | .848       | .792                         | .816 | .841 | .000 | .897       |            |



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333 Rio Rancho Drive NW, Suite 101  
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ADVANCEDESIGN

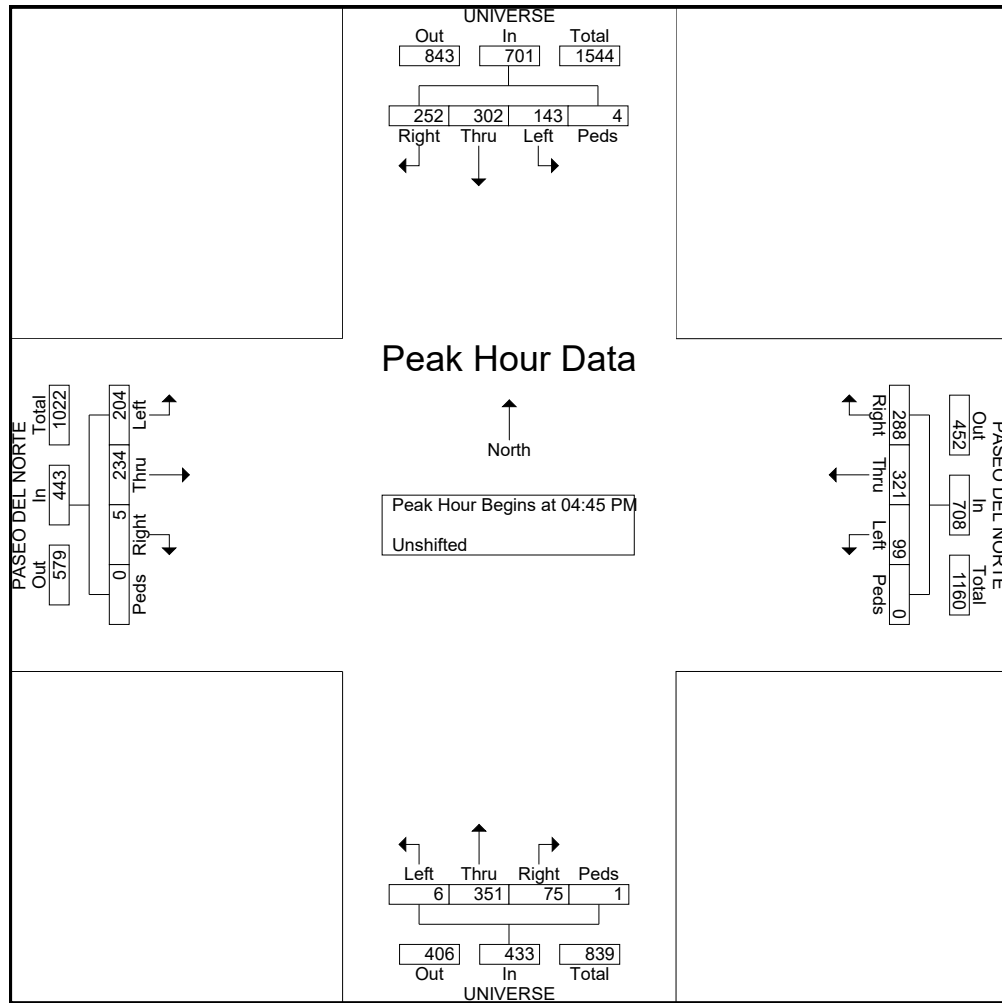
File Name : COMBINED UNV-PDN\_03-16-22\_0

Site Code : 00000000

Start Date : 3/16/2022

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|                                                            | UNIVERSE<br>From North |           |           |          |            | PASEO DEL NORTE<br>From East |           |           |      |            | UNIVERSE<br>From South |            |          |          |            | PASEO DEL NORTE<br>From West |           |           |      |            |            |
|------------------------------------------------------------|------------------------|-----------|-----------|----------|------------|------------------------------|-----------|-----------|------|------------|------------------------|------------|----------|----------|------------|------------------------------|-----------|-----------|------|------------|------------|
| Start Time                                                 | Right                  | Thru      | Left      | Peds     | App. Total | Right                        | Thru      | Left      | Peds | App. Total | Right                  | Thru       | Left     | Peds     | App. Total | Right                        | Thru      | Left      | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1 |                        |           |           |          |            |                              |           |           |      |            |                        |            |          |          |            |                              |           |           |      |            |            |
| Peak Hour for Entire Intersection Begins at 04:45 PM       |                        |           |           |          |            |                              |           |           |      |            |                        |            |          |          |            |                              |           |           |      |            |            |
| 04:45 PM                                                   | 59                     | <b>93</b> | 32        | <b>2</b> | 186        | <b>76</b>                    | 84        | <b>31</b> | 0    | <b>191</b> | 15                     | 80         | <b>2</b> | 0        | 97         | 1                            | 52        | 50        | 0    | 103        | 577        |
| 05:00 PM                                                   | 63                     | 80        | <b>45</b> | 0        | <b>188</b> | 71                           | 79        | 23        | 0    | 173        | 15                     | 84         | 2        | 0        | 101        | <b>2</b>                     | 60        | 45        | 0    | 107        | 569        |
| 05:15 PM                                                   | <b>66</b>              | 64        | 31        | 1        | 162        | 74                           | 70        | 26        | 0    | 170        | 22                     | 84         | 0        | <b>1</b> | 107        | 1                            | <b>72</b> | <b>70</b> | 0    | <b>143</b> | <b>582</b> |
| 05:30 PM                                                   | 64                     | 65        | 35        | 1        | 165        | 67                           | <b>88</b> | 19        | 0    | 174        | <b>23</b>              | <b>103</b> | 2        | 0        | <b>128</b> | 1                            | 50        | 39        | 0    | 90         | 557        |
| Total Volume                                               | 252                    | 302       | 143       | 4        | 701        | 288                          | 321       | 99        | 0    | 708        | 75                     | 351        | 6        | 1        | 433        | 5                            | 234       | 204       | 0    | 443        | 2285       |
| % App. Total                                               | 35.9                   | 43.1      | 20.4      | 0.6      |            | 40.7                         | 45.3      | 14        | 0    |            | 17.3                   | 81.1       | 1.4      | 0.2      |            | 1.1                          | 52.8      | 46        | 0    |            |            |
| PHF                                                        | .955                   | .812      | .794      | .500     | .932       | .947                         | .912      | .798      | .000 | .927       | .815                   | .852       | .750     | .250     | .846       | .625                         | .813      | .729      | .000 | .774       | .982       |





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Rio Rancho, NM 87124  
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File Name : COMBINED UNV-PDN\_03-16-22\_0

Site Code : 00000000

Start Date : 3/16/2022

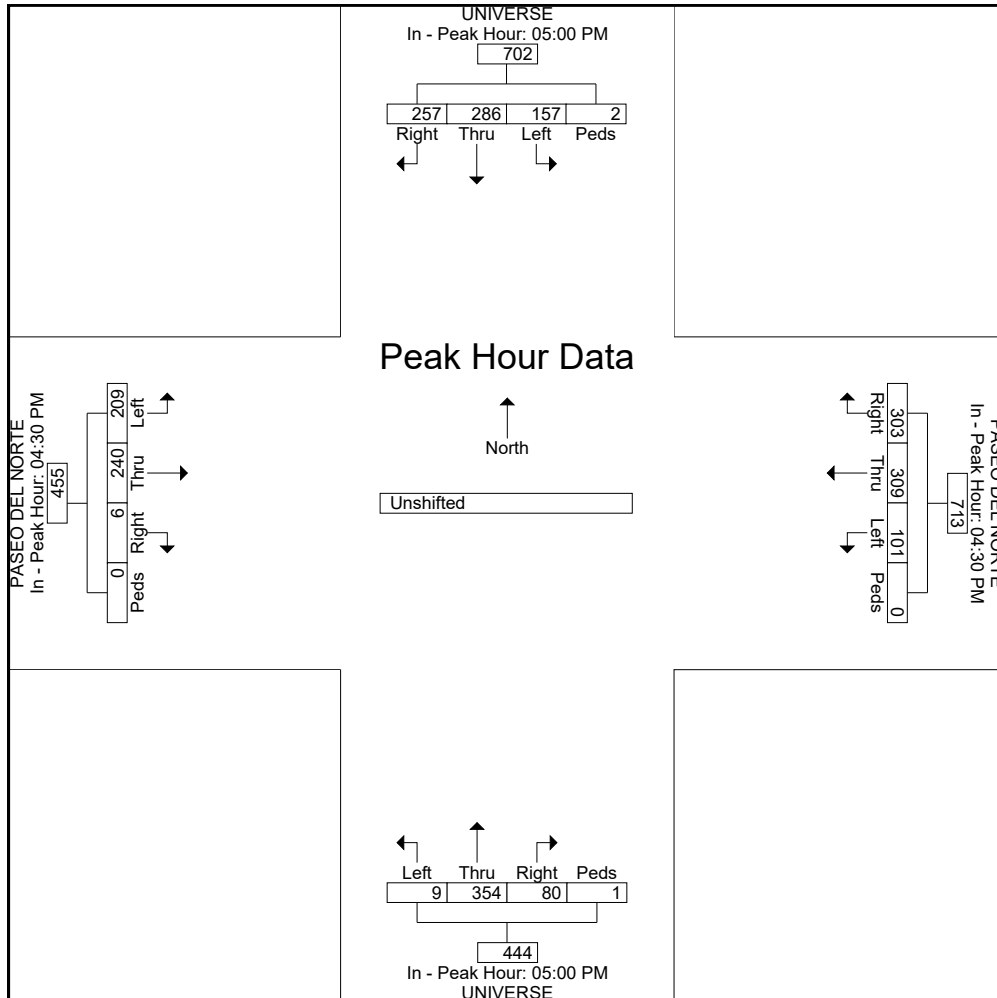
Page No : 7

|            | UNIVERSE<br>From North |      |      |      |            | PASEO DEL NORTE<br>From East |      |      |      |            | UNIVERSE<br>From South |      |      |      |            | PASEO DEL NORTE<br>From West |      |      |      |            |            |
|------------|------------------------|------|------|------|------------|------------------------------|------|------|------|------------|------------------------|------|------|------|------------|------------------------------|------|------|------|------------|------------|
| Start Time | Right                  | Thru | Left | Peds | App. Total | Right                        | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right                        | Thru | Left | Peds | App. Total | Int. Total |

Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

|              | 05:00 PM |      |      |      |      | 04:30 PM |      |      |      |      | 05:00 PM |      |      |      |      | 04:30 PM |      |      |      |      |
|--------------|----------|------|------|------|------|----------|------|------|------|------|----------|------|------|------|------|----------|------|------|------|------|
| +0 mins.     | 63       | 80   | 45   | 0    | 188  | 82       | 76   | 21   | 0    | 179  | 15       | 84   | 2    | 0    | 101  | 2        | 56   | 44   | 0    | 102  |
| +15 mins.    | 66       | 64   | 31   | 1    | 162  | 76       | 84   | 31   | 0    | 191  | 22       | 84   | 0    | 1    | 107  | 1        | 52   | 50   | 0    | 103  |
| +30 mins.    | 64       | 65   | 35   | 1    | 165  | 71       | 79   | 23   | 0    | 173  | 23       | 103  | 2    | 0    | 128  | 2        | 60   | 45   | 0    | 107  |
| +45 mins.    | 64       | 77   | 46   | 0    | 187  | 74       | 70   | 26   | 0    | 170  | 20       | 83   | 5    | 0    | 108  | 1        | 72   | 70   | 0    | 143  |
| Total Volume | 257      | 286  | 157  | 2    | 702  | 303      | 309  | 101  | 0    | 713  | 80       | 354  | 9    | 1    | 444  | 6        | 240  | 209  | 0    | 455  |
| % App. Total | 36.6     | 40.7 | 22.4 | 0.3  |      | 42.5     | 43.3 | 14.2 | 0    |      | 18       | 79.7 | 2    | 0.2  |      | 1.3      | 52.7 | 45.9 | 0    |      |
| PHF          | .973     | .894 | .853 | .500 | .934 | .924     | .920 | .815 | .000 | .933 | .870     | .859 | .450 | .250 | .867 | .750     | .833 | .746 | .000 | .795 |



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333 Rio Rancho Drive NW, Suite 101  
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File Name : COMBINED UNV-PDN\_03-16-22\_0

Site Code : 00000000

Start Date : 3/16/2022

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# Huitt-Zollars, Inc.

333 Rio Rancho Drive NW, Suite 101  
Rio Rancho, NM 87124  
ADVANCEDESIGN

Weather: sunny  
Serial Number: TU-3083  
Collected By: MM & JS  
Other:

File Name : uni-vol\_03-17-22\_1  
Site Code : 00000000  
Start Date : 3/17/2022  
Page No : 1

## Groups Printed- Unshifted

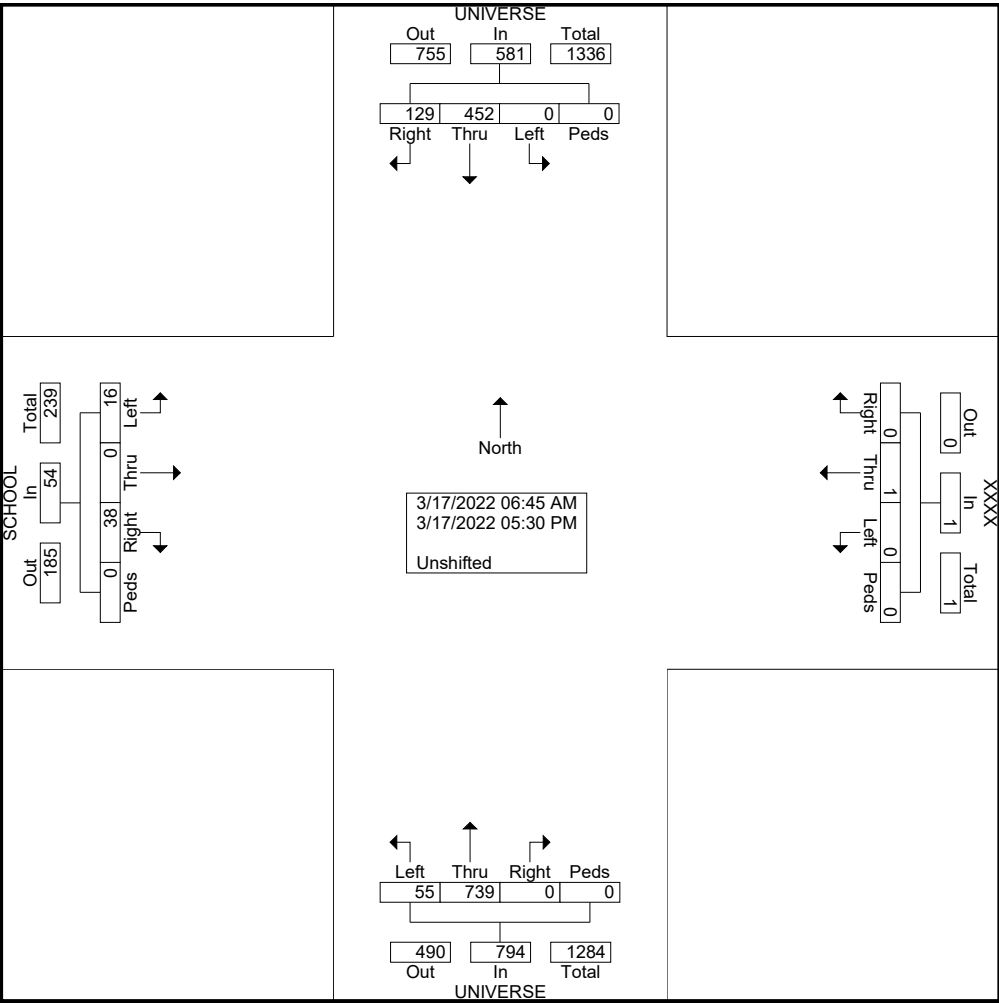
|               | UNIVERSE<br>From North |      |      |      | XXXX<br>From East |      |      |      | UNIVERSE<br>From South |      |      |      | SCHOOL<br>From West |      |      |      | Int. Total |
|---------------|------------------------|------|------|------|-------------------|------|------|------|------------------------|------|------|------|---------------------|------|------|------|------------|
| Start Time    | Right                  | Thru | Left | Peds | Right             | Thru | Left | Peds | Right                  | Thru | Left | Peds | Right               | Thru | Left | Peds |            |
| 06:45 AM      | 66                     | 0    | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 0    | 27   | 0    | 9                   | 0    | 3    | 0    | 105        |
| Total         | 66                     | 0    | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 0    | 27   | 0    | 9                   | 0    | 3    | 0    | 105        |
| 07:00 AM      | 51                     | 0    | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 0    | 24   | 0    | 14                  | 0    | 7    | 0    | 96         |
| 07:15 AM      | 5                      | 0    | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 0    | 0    | 0    | 1                   | 0    | 1    | 0    | 7          |
| 07:30 AM      | 3                      | 0    | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 0    | 2    | 0    | 1                   | 0    | 0    | 0    | 6          |
| 07:45 AM      | 2                      | 0    | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 0    | 0    | 0    | 0                   | 0    | 1    | 0    | 3          |
| Total         | 61                     | 0    | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 0    | 26   | 0    | 16                  | 0    | 9    | 0    | 112        |
| *** BREAK *** |                        |      |      |      |                   |      |      |      |                        |      |      |      |                     |      |      |      |            |
| 08:15 AM      | 0                      | 0    | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 0    | 0    | 0    | 0                   | 0    | 1    | 0    | 1          |
| *** BREAK *** |                        |      |      |      |                   |      |      |      |                        |      |      |      |                     |      |      |      |            |
| Total         | 0                      | 0    | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 0    | 0    | 0    | 0                   | 0    | 1    | 0    | 1          |
| *** BREAK *** |                        |      |      |      |                   |      |      |      |                        |      |      |      |                     |      |      |      |            |
| 03:45 PM      | 1                      | 45   | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 73   | 1    | 0    | 4                   | 0    | 1    | 0    | 125        |
| Total         | 1                      | 45   | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 73   | 1    | 0    | 4                   | 0    | 1    | 0    | 125        |
| 04:00 PM      | 0                      | 43   | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 77   | 0    | 0    | 5                   | 0    | 0    | 0    | 125        |
| 04:15 PM      | 1                      | 62   | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 89   | 0    | 0    | 0                   | 0    | 0    | 0    | 152        |
| 04:30 PM      | 0                      | 59   | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 109  | 0    | 0    | 1                   | 0    | 1    | 0    | 170        |
| 04:45 PM      | 0                      | 63   | 0    | 0    | 0                 | 1    | 0    | 0    | 0                      | 100  | 1    | 0    | 0                   | 0    | 0    | 0    | 165        |
| Total         | 1                      | 227  | 0    | 0    | 0                 | 1    | 0    | 0    | 0                      | 375  | 1    | 0    | 6                   | 0    | 1    | 0    | 612        |
| 05:00 PM      | 0                      | 68   | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 93   | 0    | 0    | 0                   | 0    | 0    | 0    | 161        |
| 05:15 PM      | 0                      | 64   | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 100  | 0    | 0    | 3                   | 0    | 1    | 0    | 168        |
| 05:30 PM      | 0                      | 48   | 0    | 0    | 0                 | 0    | 0    | 0    | 0                      | 98   | 0    | 0    | 0                   | 0    | 0    | 0    | 146        |
| Grand Total   | 129                    | 452  | 0    | 0    | 0                 | 1    | 0    | 0    | 0                      | 739  | 55   | 0    | 38                  | 0    | 16   | 0    | 1430       |
| Apprch %      | 22.2                   | 77.8 | 0    | 0    | 0                 | 100  | 0    | 0    | 0                      | 93.1 | 6.9  | 0    | 70.4                | 0    | 29.6 | 0    |            |
| Total %       | 9                      | 31.6 | 0    | 0    | 0                 | 0.1  | 0    | 0    | 0                      | 51.7 | 3.8  | 0    | 2.7                 | 0    | 1.1  | 0    |            |



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333 Rio Rancho Drive NW, Suite 101  
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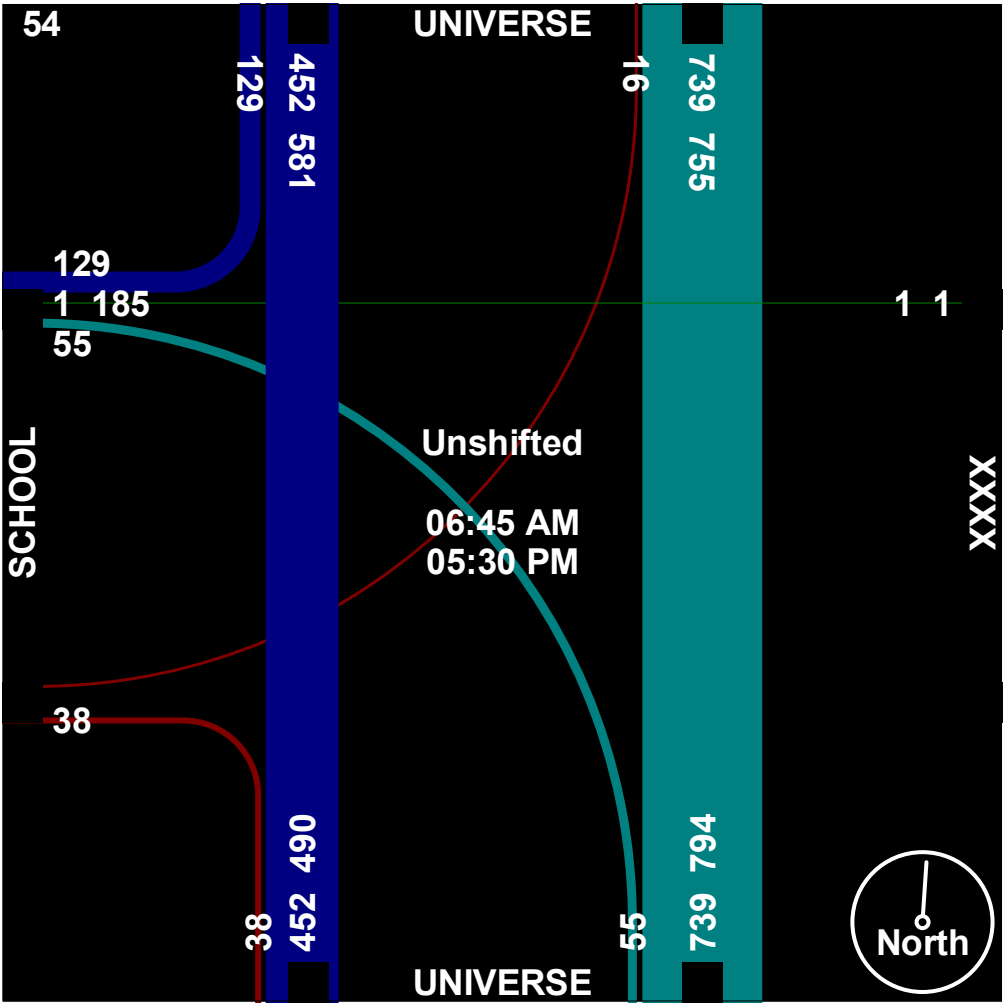
File Name : uni-vol\_03-17-22\_1  
Site Code : 00000000  
Start Date : 3/17/2022  
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# Huitt-Zollars, Inc.

333 Rio Rancho Drive NW, Suite 101  
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ADVANCEDESIGN

File Name : uni-vol\_03-17-22\_1  
Site Code : 00000000  
Start Date : 3/17/2022  
Page No : 3



# Huitt-Zollars, Inc.

333 Rio Rancho Drive NW, Suite 101  
Rio Rancho, NM 87124  
ADVANCEDESIGN

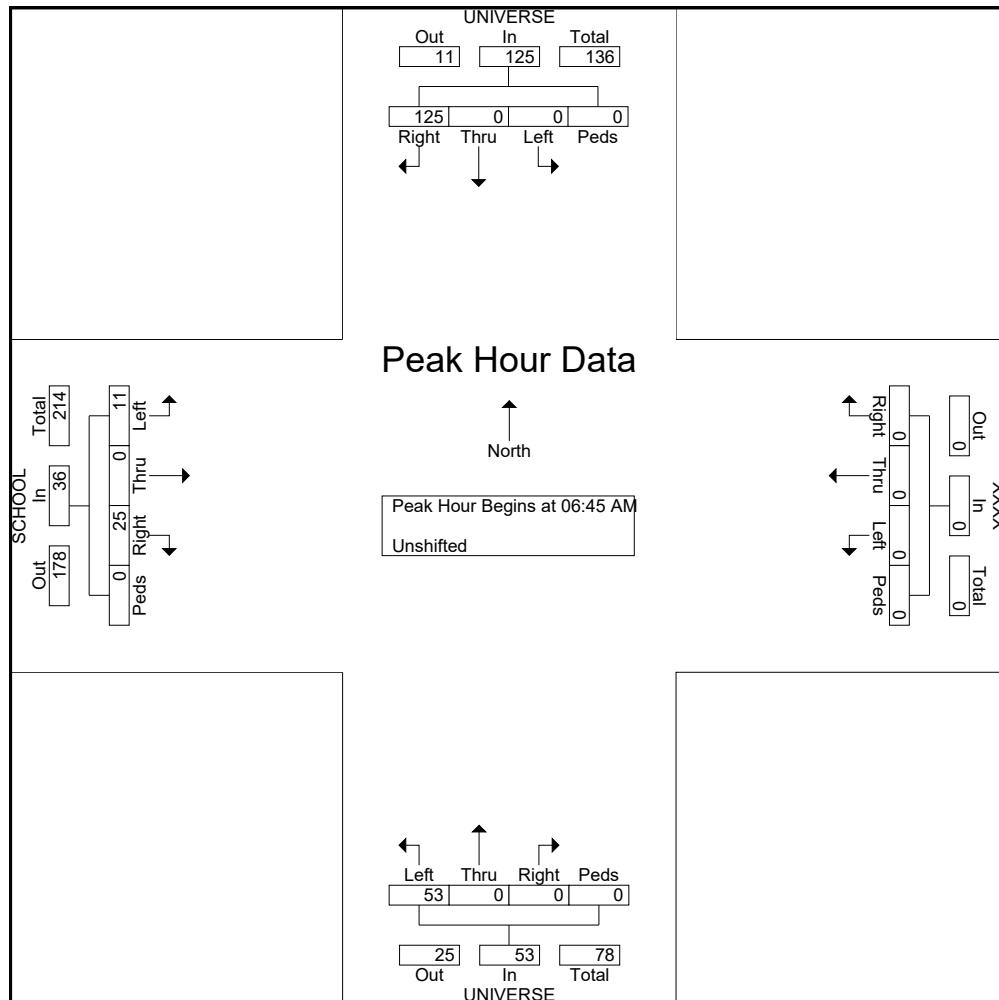
File Name : uni-vol\_03-17-22\_1

Site Code : 00000000

Start Date : 3/17/2022

Page No : 4

|                                                            | UNIVERSE<br>From North |      |      |      |            | XXXX<br>From East |      |      |      |            | UNIVERSE<br>From South |      |      |      |            | SCHOOL<br>From West |      |      |      |            |            |
|------------------------------------------------------------|------------------------|------|------|------|------------|-------------------|------|------|------|------------|------------------------|------|------|------|------------|---------------------|------|------|------|------------|------------|
| Start Time                                                 | Right                  | Thru | Left | Peds | App. Total | Right             | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right               | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:45 AM to 11:45 AM - Peak 1 of 1 |                        |      |      |      |            |                   |      |      |      |            |                        |      |      |      |            |                     |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 06:45 AM       |                        |      |      |      |            |                   |      |      |      |            |                        |      |      |      |            |                     |      |      |      |            |            |
| 06:45 AM                                                   | 66                     | 0    | 0    | 0    | 66         | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 27   | 0    | 27         | 9                   | 0    | 3    | 0    | 12         | 105        |
| 07:00 AM                                                   | 51                     | 0    | 0    | 0    | 51         | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 24   | 0    | 24         | 14                  | 0    | 7    | 0    | 21         | 96         |
| 07:15 AM                                                   | 5                      | 0    | 0    | 0    | 5          | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 0    | 0    | 0          | 1                   | 0    | 1    | 0    | 2          | 7          |
| 07:30 AM                                                   | 3                      | 0    | 0    | 0    | 3          | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 2    | 0    | 2          | 1                   | 0    | 0    | 0    | 1          | 6          |
| Total Volume                                               | 125                    | 0    | 0    | 0    | 125        | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 53   | 0    | 53         | 25                  | 0    | 11   | 0    | 36         | 214        |
| % App. Total                                               | 100                    | 0    | 0    | 0    |            | 0                 | 0    | 0    | 0    |            | 0                      | 0    | 100  | 0    |            | 69.4                | 0    | 30.6 | 0    |            |            |
| PHF                                                        | .473                   | .000 | .000 | .000 | .473       | .000              | .000 | .000 | .000 | .000       | .000                   | .000 | .491 | .000 | .491       | .446                | .000 | .393 | .000 | .429       | .510       |





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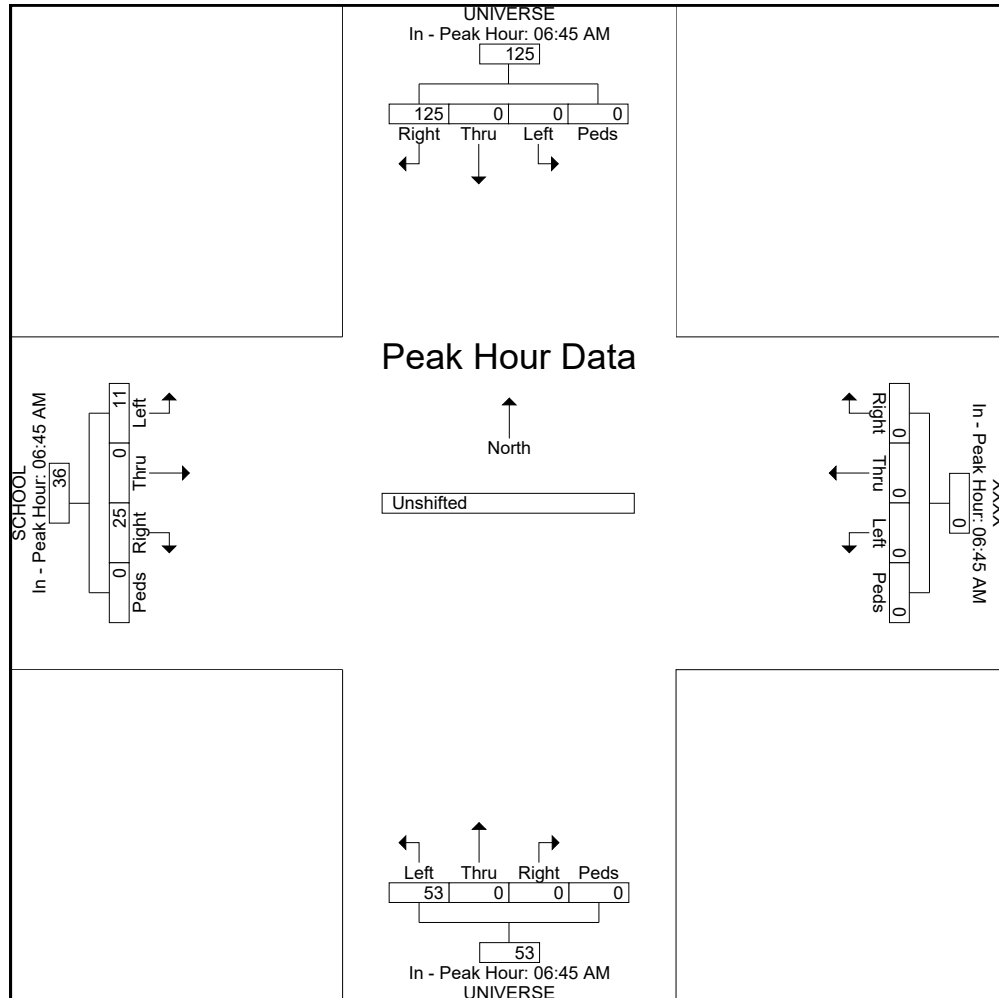
File Name : uni-vol\_03-17-22\_1

Site Code : 00000000

Start Date : 3/17/2022

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|                                                            | UNIVERSE<br>From North |      |      |      |            | XXXX<br>From East |      |      |      |            | UNIVERSE<br>From South |      |      |      |            | SCHOOL<br>From West |      |      |      |            |            |
|------------------------------------------------------------|------------------------|------|------|------|------------|-------------------|------|------|------|------------|------------------------|------|------|------|------------|---------------------|------|------|------|------------|------------|
| Start Time                                                 | Right                  | Thru | Left | Peds | App. Total | Right             | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right               | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:45 AM to 11:45 AM - Peak 1 of 1 |                        |      |      |      |            |                   |      |      |      |            |                        |      |      |      |            |                     |      |      |      |            |            |
| Peak Hour for Each Approach Begins at:                     |                        |      |      |      |            |                   |      |      |      |            |                        |      |      |      |            |                     |      |      |      |            |            |
| +0 mins.                                                   | 66                     | 0    | 0    | 0    | 66         | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 27   | 0    | 27         | 9                   | 0    | 3    | 0    | 12         |            |
| +15 mins.                                                  | 51                     | 0    | 0    | 0    | 51         | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 24   | 0    | 24         | 14                  | 0    | 7    | 0    | 21         |            |
| +30 mins.                                                  | 5                      | 0    | 0    | 0    | 5          | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 0    | 0    | 0          | 1                   | 0    | 1    | 0    | 2          |            |
| +45 mins.                                                  | 3                      | 0    | 0    | 0    | 3          | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 2    | 0    | 2          | 1                   | 0    | 0    | 0    | 1          |            |
| Total Volume                                               | 125                    | 0    | 0    | 0    | 125        | 0                 | 0    | 0    | 0    | 0          | 0                      | 0    | 53   | 0    | 53         | 25                  | 0    | 11   | 0    | 36         |            |
| % App. Total                                               | 100                    | 0    | 0    | 0    |            | 0                 | 0    | 0    | 0    |            | 0                      | 0    | 100  | 0    |            | 69.4                | 0    | 30.6 | 0    |            |            |
| PHF                                                        | .473                   | .000 | .000 | .000 | .473       | .000              | .000 | .000 | .000 | .000       | .000                   | .000 | .491 | .000 | .491       | .446                | .000 | .393 | .000 | .429       |            |



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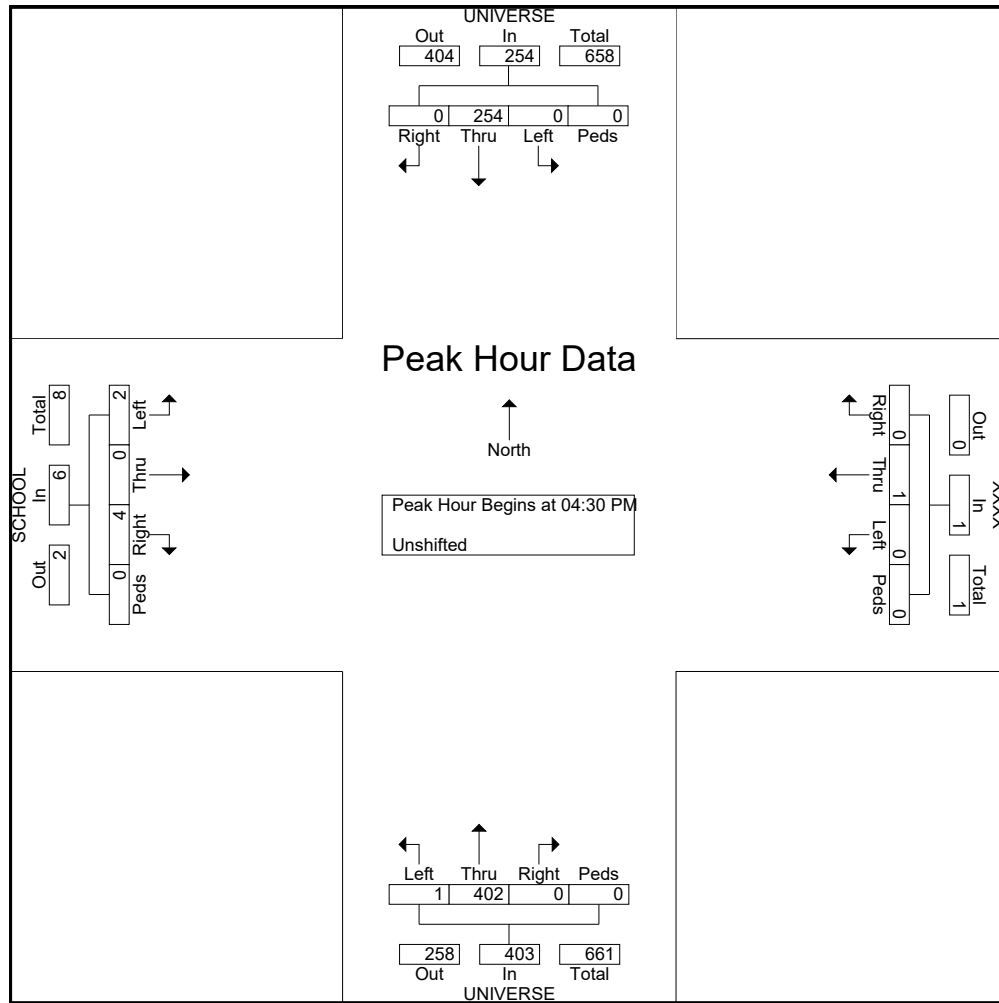
File Name : uni-vol\_03-17-22\_1

Site Code : 00000000

Start Date : 3/17/2022

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|                                                            | UNIVERSE<br>From North |      |      |      |            | XXXX<br>From East |      |      |      |            | UNIVERSE<br>From South |      |      |      |            | SCHOOL<br>From West |      |      |      |            |            |
|------------------------------------------------------------|------------------------|------|------|------|------------|-------------------|------|------|------|------------|------------------------|------|------|------|------------|---------------------|------|------|------|------------|------------|
| Start Time                                                 | Right                  | Thru | Left | Peds | App. Total | Right             | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right               | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 PM to 05:30 PM - Peak 1 of 1 |                        |      |      |      |            |                   |      |      |      |            |                        |      |      |      |            |                     |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 04:30 PM       |                        |      |      |      |            |                   |      |      |      |            |                        |      |      |      |            |                     |      |      |      |            |            |
| 04:30 PM                                                   | 0                      | 59   | 0    | 0    | 59         | 0                 | 0    | 0    | 0    | 0          | 0                      | 109  | 0    | 0    | 109        | 1                   | 0    | 1    | 0    | 2          | 170        |
| 04:45 PM                                                   | 0                      | 63   | 0    | 0    | 63         | 0                 | 1    | 0    | 0    | 1          | 0                      | 100  | 1    | 0    | 101        | 0                   | 0    | 0    | 0    | 0          | 165        |
| 05:00 PM                                                   | 0                      | 68   | 0    | 0    | 68         | 0                 | 0    | 0    | 0    | 0          | 0                      | 93   | 0    | 0    | 93         | 0                   | 0    | 0    | 0    | 0          | 161        |
| 05:15 PM                                                   | 0                      | 64   | 0    | 0    | 64         | 0                 | 0    | 0    | 0    | 0          | 0                      | 100  | 0    | 0    | 100        | 3                   | 0    | 1    | 0    | 4          | 168        |
| Total Volume                                               | 0                      | 254  | 0    | 0    | 254        | 0                 | 1    | 0    | 0    | 1          | 0                      | 402  | 1    | 0    | 403        | 4                   | 0    | 2    | 0    | 6          | 664        |
| % App. Total                                               | 0                      | 100  | 0    | 0    |            | 0                 | 100  | 0    | 0    |            | 0                      | 99.8 | 0.2  | 0    |            | 66.7                | 0    | 33.3 | 0    |            |            |
| PHF                                                        | .000                   | .934 | .000 | .000 | .934       | .000              | .250 | .000 | .000 | .250       | .000                   | .922 | .250 | .000 | .924       | .333                | .000 | .500 | .000 | .375       | .976       |



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File Name : uni-vol\_03-17-22\_1

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Start Date : 3/17/2022

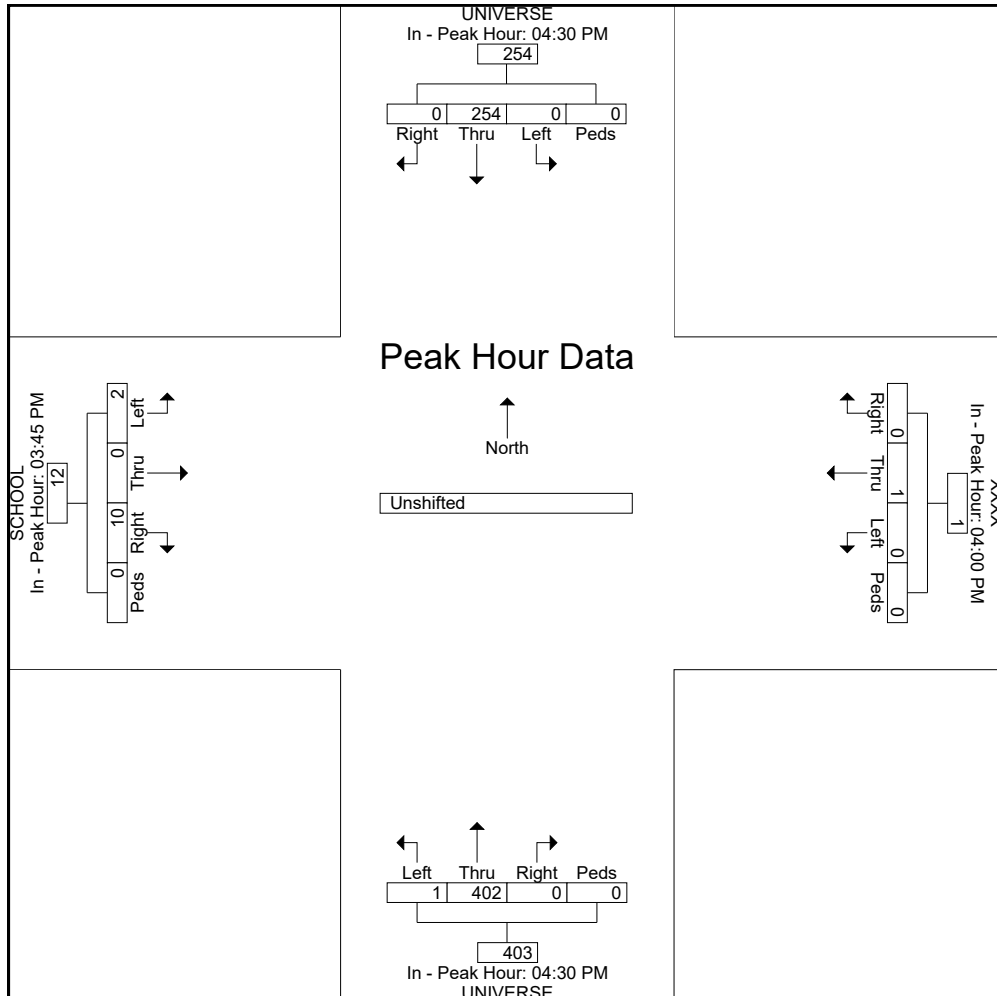
Page No : 7

|            | UNIVERSE<br>From North |      |      |      |            | XXXX<br>From East |      |      |      |            | UNIVERSE<br>From South |      |      |      |            | SCHOOL<br>From West |      |      |      |            |            |
|------------|------------------------|------|------|------|------------|-------------------|------|------|------|------------|------------------------|------|------|------|------------|---------------------|------|------|------|------------|------------|
| Start Time | Right                  | Thru | Left | Peds | App. Total | Right             | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right               | Thru | Left | Peds | App. Total | Int. Total |

Peak Hour Analysis From 12:00 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

|              | 04:30 PM |      |      |      |      | 04:00 PM |      |      |      |      | 04:30 PM |      |      |      |      | 03:45 PM |      |      |      |      |  |
|--------------|----------|------|------|------|------|----------|------|------|------|------|----------|------|------|------|------|----------|------|------|------|------|--|
| +0 mins.     | 0        | 59   | 0    | 0    | 59   | 0        | 0    | 0    | 0    | 0    | 0        | 109  | 0    | 0    | 109  | 4        | 0    | 1    | 0    | 5    |  |
| +15 mins.    | 0        | 63   | 0    | 0    | 63   | 0        | 0    | 0    | 0    | 0    | 0        | 100  | 1    | 0    | 101  | 5        | 0    | 0    | 0    | 5    |  |
| +30 mins.    | 0        | 68   | 0    | 0    | 68   | 0        | 0    | 0    | 0    | 0    | 0        | 93   | 0    | 0    | 93   | 0        | 0    | 0    | 0    | 0    |  |
| +45 mins.    | 0        | 64   | 0    | 0    | 64   | 0        | 1    | 0    | 0    | 1    | 0        | 100  | 0    | 0    | 100  | 1        | 0    | 1    | 0    | 2    |  |
| Total Volume | 0        | 254  | 0    | 0    | 254  | 0        | 1    | 0    | 0    | 1    | 0        | 402  | 1    | 0    | 403  | 10       | 0    | 2    | 0    | 12   |  |
| % App. Total | 0        | 100  | 0    | 0    |      | 0        | 100  | 0    | 0    |      | 0        | 99.8 | 0.2  | 0    |      | 83.3     | 0    | 16.7 | 0    |      |  |
| PHF          | .000     | .934 | .000 | .000 | .934 | .000     | .250 | .000 | .000 | .250 | .000     | .922 | .250 | .000 | .924 | .500     | .000 | .500 | .000 | .600 |  |





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Start Date : 3/17/2022

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# Huitt-Zollars, Inc.

333 Rio Rancho Drive NW, Suite 101

Rio Rancho, NM 87124

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Weather: sunny  
Serial Number: TU-3082  
Collected By: LBierig  
Other:

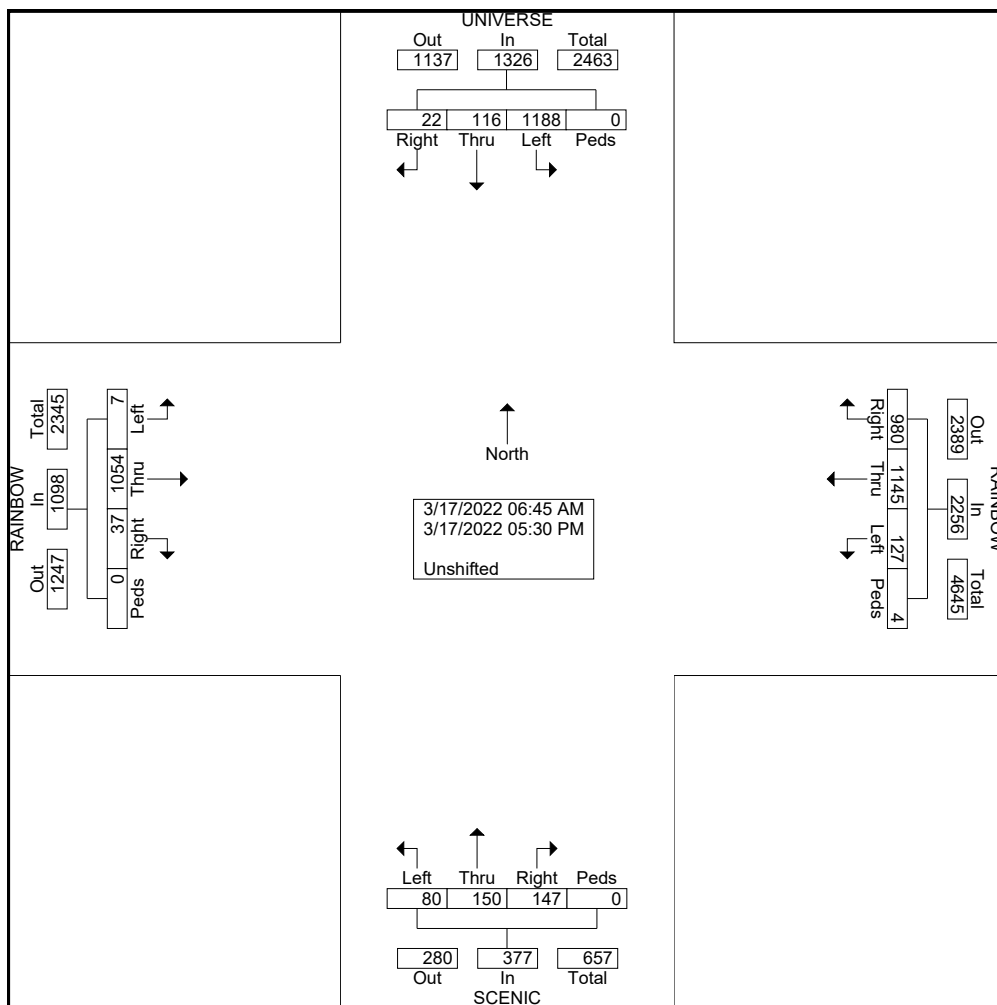
File Name : SCE0UNV-RAIN\_03-17-22\_0  
Site Code : 00000000  
Start Date : 3/17/2022  
Page No : 1

## Groups Printed- Unshifted

|               | UNIVERSE<br>From North |      |      |      | RAINBOW<br>From East |      |      |      | SCENIC<br>From South |      |      |      | RAINBOW<br>From West |      |      |      | Int. Total |
|---------------|------------------------|------|------|------|----------------------|------|------|------|----------------------|------|------|------|----------------------|------|------|------|------------|
| Start Time    | Right                  | Thru | Left | Peds | Right                | Thru | Left | Peds | Right                | Thru | Left | Peds | Right                | Thru | Left | Peds |            |
| 06:45 AM      | 9                      | 7    | 139  | 0    | 45                   | 118  | 1    | 0    | 11                   | 14   | 22   | 0    | 7                    | 110  | 1    | 0    | 484        |
| Total         | 9                      | 7    | 139  | 0    | 45                   | 118  | 1    | 0    | 11                   | 14   | 22   | 0    | 7                    | 110  | 1    | 0    | 484        |
| 07:00 AM      | 4                      | 9    | 151  | 0    | 48                   | 127  | 1    | 0    | 7                    | 8    | 27   | 0    | 7                    | 131  | 1    | 0    | 521        |
| 07:15 AM      | 1                      | 5    | 131  | 0    | 28                   | 47   | 3    | 0    | 16                   | 12   | 3    | 0    | 0                    | 97   | 0    | 0    | 343        |
| 07:30 AM      | 1                      | 6    | 103  | 0    | 44                   | 46   | 5    | 0    | 13                   | 6    | 1    | 0    | 0                    | 68   | 0    | 0    | 293        |
| 07:45 AM      | 2                      | 5    | 81   | 0    | 29                   | 44   | 5    | 0    | 10                   | 2    | 2    | 0    | 0                    | 66   | 0    | 0    | 246        |
| Total         | 8                      | 25   | 466  | 0    | 149                  | 264  | 14   | 0    | 46                   | 28   | 33   | 0    | 7                    | 362  | 1    | 0    | 1403       |
| 08:00 AM      | 0                      | 4    | 80   | 0    | 24                   | 46   | 3    | 0    | 5                    | 5    | 7    | 0    | 1                    | 78   | 1    | 0    | 254        |
| 08:15 AM      | 1                      | 0    | 62   | 0    | 21                   | 22   | 0    | 0    | 4                    | 13   | 1    | 0    | 0                    | 71   | 0    | 0    | 195        |
| 08:30 AM      | 2                      | 4    | 58   | 0    | 25                   | 21   | 4    | 4    | 17                   | 9    | 0    | 0    | 0                    | 45   | 0    | 0    | 189        |
| *** BREAK *** |                        |      |      |      |                      |      |      |      |                      |      |      |      |                      |      |      |      |            |
| Total         | 3                      | 8    | 200  | 0    | 70                   | 89   | 7    | 4    | 26                   | 27   | 8    | 0    | 1                    | 194  | 1    | 0    | 638        |
| *** BREAK *** |                        |      |      |      |                      |      |      |      |                      |      |      |      |                      |      |      |      |            |
| 03:45 PM      | 0                      | 4    | 50   | 0    | 77                   | 69   | 13   | 0    | 8                    | 5    | 3    | 0    | 6                    | 40   | 2    | 0    | 277        |
| Total         | 0                      | 4    | 50   | 0    | 77                   | 69   | 13   | 0    | 8                    | 5    | 3    | 0    | 6                    | 40   | 2    | 0    | 277        |
| 04:00 PM      | 0                      | 7    | 33   | 0    | 82                   | 83   | 14   | 0    | 9                    | 10   | 0    | 0    | 1                    | 38   | 0    | 0    | 277        |
| 04:15 PM      | 0                      | 12   | 53   | 0    | 75                   | 93   | 10   | 0    | 8                    | 8    | 1    | 0    | 2                    | 50   | 0    | 0    | 312        |
| 04:30 PM      | 1                      | 6    | 44   | 0    | 109                  | 89   | 11   | 0    | 8                    | 13   | 3    | 0    | 4                    | 41   | 1    | 0    | 330        |
| 04:45 PM      | 0                      | 11   | 64   | 0    | 77                   | 67   | 14   | 0    | 6                    | 13   | 0    | 0    | 1                    | 47   | 0    | 0    | 300        |
| Total         | 1                      | 36   | 194  | 0    | 343                  | 332  | 49   | 0    | 31                   | 44   | 4    | 0    | 8                    | 176  | 1    | 0    | 1219       |
| 05:00 PM      | 0                      | 11   | 56   | 0    | 104                  | 87   | 17   | 0    | 10                   | 15   | 4    | 0    | 2                    | 48   | 0    | 0    | 354        |
| 05:15 PM      | 1                      | 17   | 50   | 0    | 93                   | 94   | 16   | 0    | 10                   | 6    | 3    | 0    | 3                    | 85   | 1    | 0    | 379        |
| 05:30 PM      | 0                      | 8    | 33   | 0    | 99                   | 92   | 10   | 0    | 5                    | 11   | 3    | 0    | 3                    | 39   | 0    | 0    | 303        |
| Grand Total   | 22                     | 116  | 1188 | 0    | 980                  | 1145 | 127  | 4    | 147                  | 150  | 80   | 0    | 37                   | 1054 | 7    | 0    | 5057       |
| Apprch %      | 1.7                    | 8.7  | 89.6 | 0    | 43.4                 | 50.8 | 5.6  | 0.2  | 39                   | 39.8 | 21.2 | 0    | 3.4                  | 96   | 0.6  | 0    |            |
| Total %       | 0.4                    | 2.3  | 23.5 | 0    | 19.4                 | 22.6 | 2.5  | 0.1  | 2.9                  | 3    | 1.6  | 0    | 0.7                  | 20.8 | 0.1  | 0    |            |

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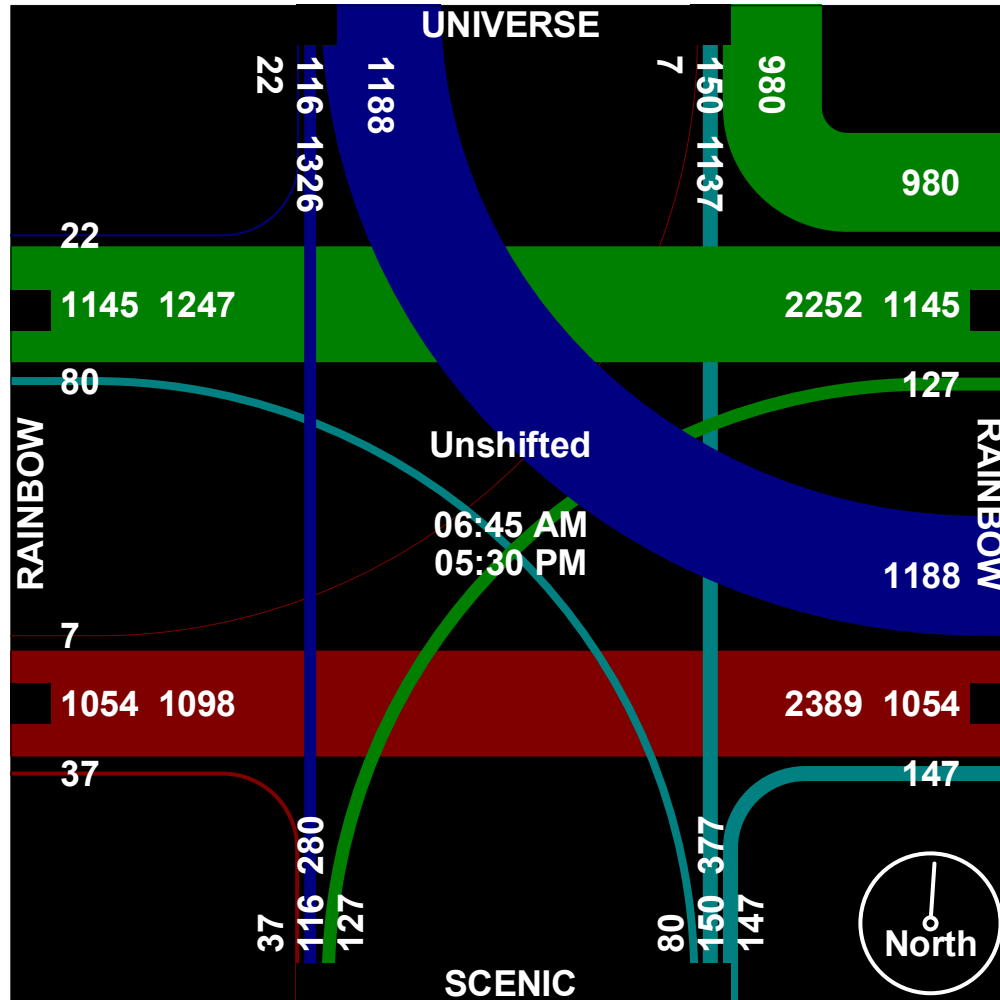
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Site Code : 00000000  
Start Date : 3/17/2022  
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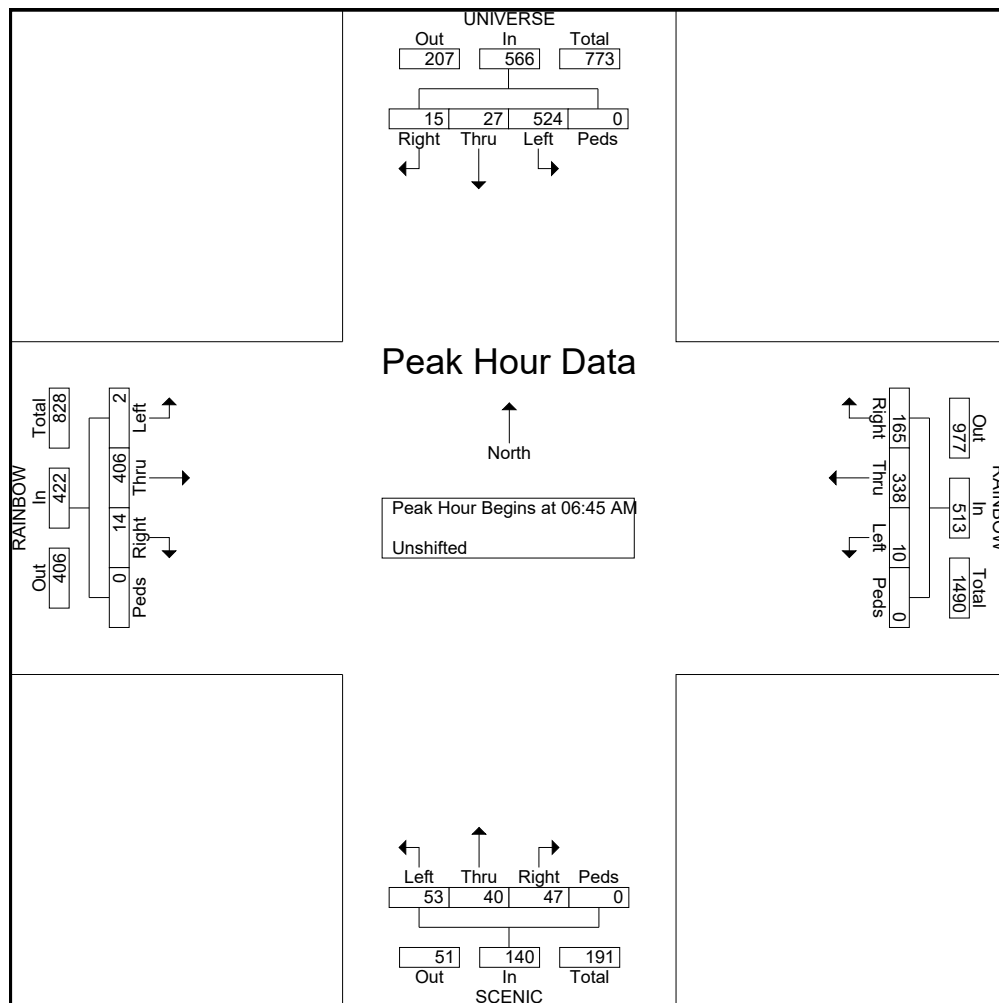
File Name : SCE0UNV-RAIN\_03-17-22\_0

Site Code : 00000000

Start Date : 3/17/2022

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|                                                            | UNIVERSE<br>From North |      |      |      |            | RAINBOW<br>From East |      |      |      |            | SCENIC<br>From South |      |      |      |            | RAINBOW<br>From West |      |      |      |            |            |
|------------------------------------------------------------|------------------------|------|------|------|------------|----------------------|------|------|------|------------|----------------------|------|------|------|------------|----------------------|------|------|------|------------|------------|
| Start Time                                                 | Right                  | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:45 AM to 11:45 AM - Peak 1 of 1 |                        |      |      |      |            |                      |      |      |      |            |                      |      |      |      |            |                      |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 06:45 AM       |                        |      |      |      |            |                      |      |      |      |            |                      |      |      |      |            |                      |      |      |      |            |            |
| 06:45 AM                                                   | 9                      | 7    | 139  | 0    | 155        | 45                   | 118  | 1    | 0    | 164        | 11                   | 14   | 22   | 0    | 47         | 7                    | 110  | 1    | 0    | 118        | 484        |
| 07:00 AM                                                   | 4                      | 9    | 151  | 0    | 164        | 48                   | 127  | 1    | 0    | 176        | 7                    | 8    | 27   | 0    | 42         | 7                    | 131  | 1    | 0    | 139        | 521        |
| 07:15 AM                                                   | 1                      | 5    | 131  | 0    | 137        | 28                   | 47   | 3    | 0    | 78         | 16                   | 12   | 3    | 0    | 31         | 0                    | 97   | 0    | 0    | 97         | 343        |
| 07:30 AM                                                   | 1                      | 6    | 103  | 0    | 110        | 44                   | 46   | 5    | 0    | 95         | 13                   | 6    | 1    | 0    | 20         | 0                    | 68   | 0    | 0    | 68         | 293        |
| Total Volume                                               | 15                     | 27   | 524  | 0    | 566        | 165                  | 338  | 10   | 0    | 513        | 47                   | 40   | 53   | 0    | 140        | 14                   | 406  | 2    | 0    | 422        | 1641       |
| % App. Total                                               | 2.7                    | 4.8  | 92.6 | 0    |            | 32.2                 | 65.9 | 1.9  | 0    |            | 33.6                 | 28.6 | 37.9 | 0    |            | 3.3                  | 96.2 | 0.5  | 0    |            |            |
| PHF                                                        | .417                   | .750 | .868 | .000 | .863       | .859                 | .665 | .500 | .000 | .729       | .734                 | .714 | .491 | .000 | .745       | .500                 | .775 | .500 | .000 | .759       | .787       |



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File Name : SCE0UNV-RAIN\_03-17-22\_0

Site Code : 00000000

Start Date : 3/17/2022

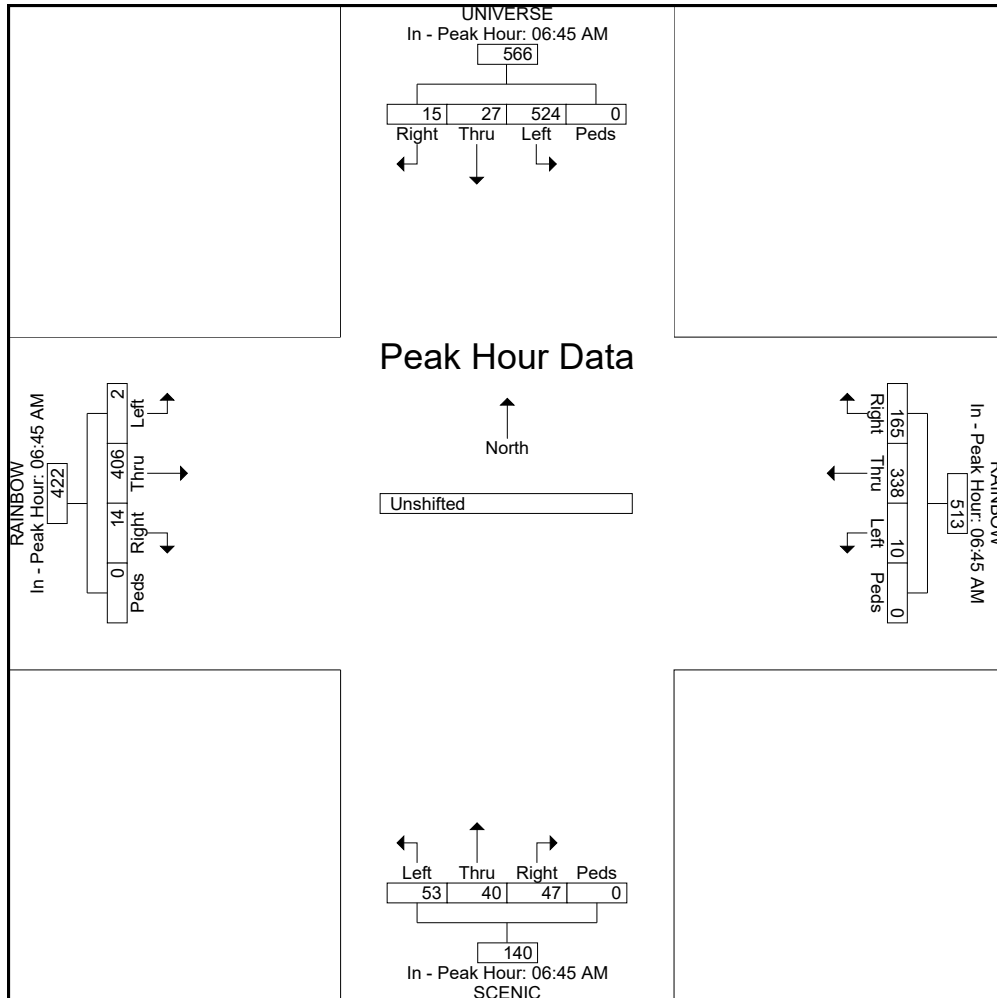
Page No : 5

|            | UNIVERSE<br>From North |      |      |      |            | RAINBOW<br>From East |      |      |      |            | SCENIC<br>From South |      |      |      |            | RAINBOW<br>From West |      |      |      |            |            |
|------------|------------------------|------|------|------|------------|----------------------|------|------|------|------------|----------------------|------|------|------|------------|----------------------|------|------|------|------------|------------|
| Start Time | Right                  | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Int. Total |

Peak Hour Analysis From 06:45 AM to 11:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

|              | 06:45 AM |      |      |      |      | 06:45 AM |      |      |      |      | 06:45 AM |      |      |      |      | 06:45 AM |      |      |      |      |
|--------------|----------|------|------|------|------|----------|------|------|------|------|----------|------|------|------|------|----------|------|------|------|------|
| +0 mins.     | 9        | 7    | 139  | 0    | 155  | 45       | 118  | 1    | 0    | 164  | 11       | 14   | 22   | 0    | 47   | 7        | 110  | 1    | 0    | 118  |
| +15 mins.    | 4        | 9    | 151  | 0    | 164  | 48       | 127  | 1    | 0    | 176  | 7        | 8    | 27   | 0    | 42   | 7        | 131  | 1    | 0    | 139  |
| +30 mins.    | 1        | 5    | 131  | 0    | 137  | 28       | 47   | 3    | 0    | 78   | 16       | 12   | 3    | 0    | 31   | 0        | 97   | 0    | 0    | 97   |
| +45 mins.    | 1        | 6    | 103  | 0    | 110  | 44       | 46   | 5    | 0    | 95   | 13       | 6    | 1    | 0    | 20   | 0        | 68   | 0    | 0    | 68   |
| Total Volume | 15       | 27   | 524  | 0    | 566  | 165      | 338  | 10   | 0    | 513  | 47       | 40   | 53   | 0    | 140  | 14       | 406  | 2    | 0    | 422  |
| % App. Total | 2.7      | 4.8  | 92.6 | 0    |      | 32.2     | 65.9 | 1.9  | 0    |      | 33.6     | 28.6 | 37.9 | 0    |      | 3.3      | 96.2 | 0.5  | 0    |      |
| PHF          | .417     | .750 | .868 | .000 | .863 | .859     | .665 | .500 | .000 | .729 | .734     | .714 | .491 | .000 | .745 | .500     | .775 | .500 | .000 | .759 |



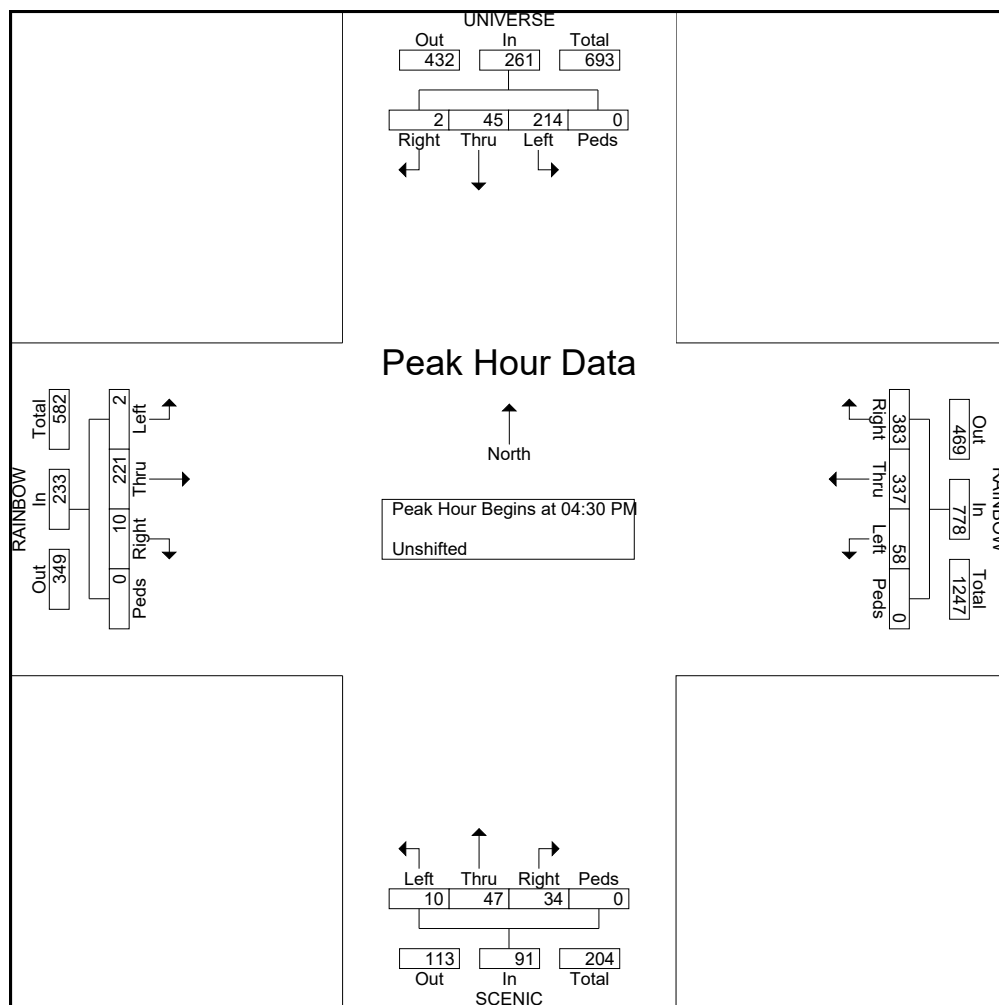


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File Name : SCE0UNV-RAIN\_03-17-22\_0  
Site Code : 00000000  
Start Date : 3/17/2022  
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|                                                            | UNIVERSE<br>From North |      |      |      |            | RAINBOW<br>From East |      |      |      |            | SCENIC<br>From South |      |      |      |            | RAINBOW<br>From West |      |      |      |            |            |
|------------------------------------------------------------|------------------------|------|------|------|------------|----------------------|------|------|------|------------|----------------------|------|------|------|------------|----------------------|------|------|------|------------|------------|
| Start Time                                                 | Right                  | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 PM to 05:30 PM - Peak 1 of 1 |                        |      |      |      |            |                      |      |      |      |            |                      |      |      |      |            |                      |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 04:30 PM       |                        |      |      |      |            |                      |      |      |      |            |                      |      |      |      |            |                      |      |      |      |            |            |
| 04:30 PM                                                   | 1                      | 6    | 44   | 0    | 51         | 109                  | 89   | 11   | 0    | 209        | 8                    | 13   | 3    | 0    | 24         | 4                    | 41   | 1    | 0    | 46         | 330        |
| 04:45 PM                                                   | 0                      | 11   | 64   | 0    | 75         | 77                   | 67   | 14   | 0    | 158        | 6                    | 13   | 0    | 0    | 19         | 1                    | 47   | 0    | 0    | 48         | 300        |
| 05:00 PM                                                   | 0                      | 11   | 56   | 0    | 67         | 104                  | 87   | 17   | 0    | 208        | 10                   | 15   | 4    | 0    | 29         | 2                    | 48   | 0    | 0    | 50         | 354        |
| 05:15 PM                                                   | 1                      | 17   | 50   | 0    | 68         | 93                   | 94   | 16   | 0    | 203        | 10                   | 6    | 3    | 0    | 19         | 3                    | 85   | 1    | 0    | 89         | 379        |
| Total Volume                                               | 2                      | 45   | 214  | 0    | 261        | 383                  | 337  | 58   | 0    | 778        | 34                   | 47   | 10   | 0    | 91         | 10                   | 221  | 2    | 0    | 233        | 1363       |
| % App. Total                                               | 0.8                    | 17.2 | 82   | 0    |            | 49.2                 | 43.3 | 7.5  | 0    |            | 37.4                 | 51.6 | 11   | 0    |            | 4.3                  | 94.8 | 0.9  | 0    |            |            |
| PHF                                                        | .500                   | .662 | .836 | .000 | .870       | .878                 | .896 | .853 | .000 | .931       | .850                 | .783 | .625 | .000 | .784       | .625                 | .650 | .500 | .000 | .654       | .899       |



# Huitt-Zollars, Inc.

333 Rio Rancho Drive NW, Suite 101  
Rio Rancho, NM 87124

ADVANCEDESIGN

File Name : SCE0UNV-RAIN\_03-17-22\_0

Site Code : 00000000

Start Date : 3/17/2022

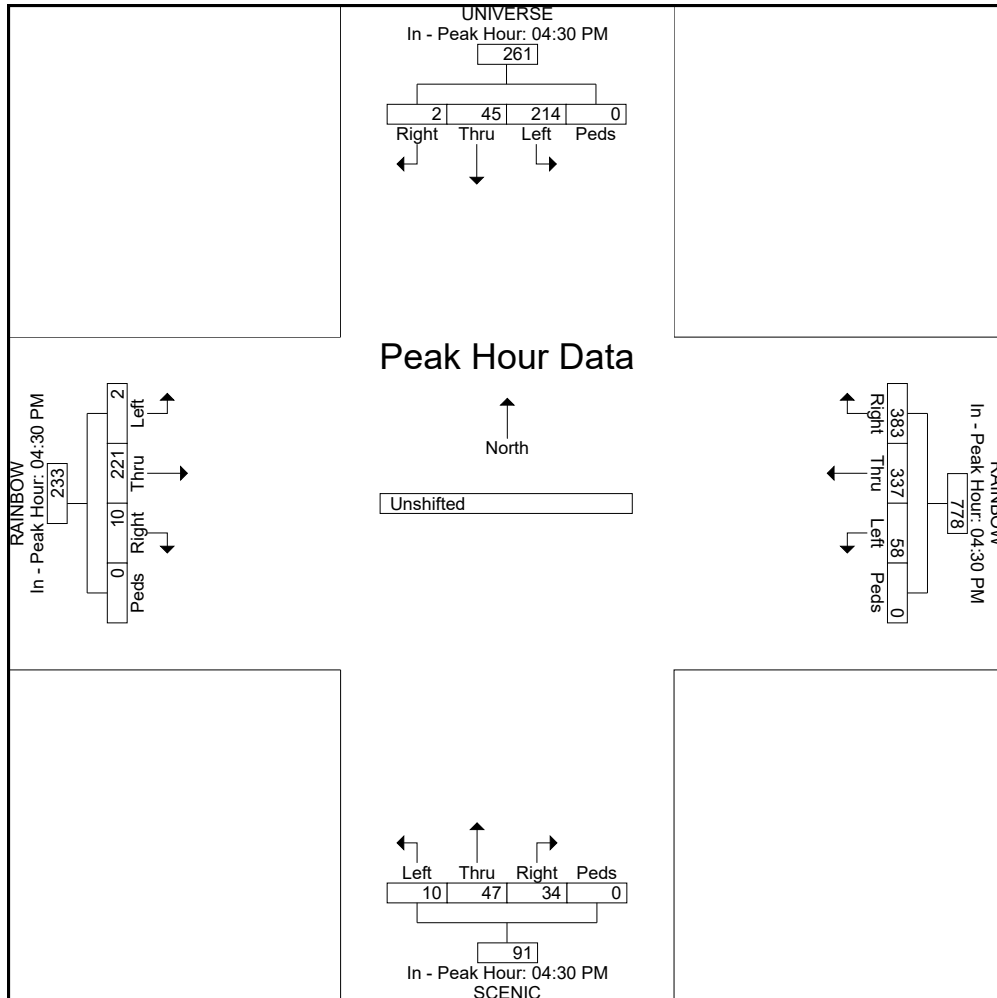
Page No : 7

|            | UNIVERSE<br>From North |      |      |      |            | RAINBOW<br>From East |      |      |      |            | SCENIC<br>From South |      |      |      |            | RAINBOW<br>From West |      |      |      |            |            |
|------------|------------------------|------|------|------|------------|----------------------|------|------|------|------------|----------------------|------|------|------|------------|----------------------|------|------|------|------------|------------|
| Start Time | Right                  | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Right                | Thru | Left | Peds | App. Total | Int. Total |

Peak Hour Analysis From 12:00 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

|              | 04:30 PM |      |      |      |      | 04:30 PM |      |      |      |      | 04:30 PM |      |      |      |      | 04:30 PM |      |      |      |      |
|--------------|----------|------|------|------|------|----------|------|------|------|------|----------|------|------|------|------|----------|------|------|------|------|
| +0 mins.     | 1        | 6    | 44   | 0    | 51   | 109      | 89   | 11   | 0    | 209  | 8        | 13   | 3    | 0    | 24   | 4        | 41   | 1    | 0    | 46   |
| +15 mins.    | 0        | 11   | 64   | 0    | 75   | 77       | 67   | 14   | 0    | 158  | 6        | 13   | 0    | 0    | 19   | 1        | 47   | 0    | 0    | 48   |
| +30 mins.    | 0        | 11   | 56   | 0    | 67   | 104      | 87   | 17   | 0    | 208  | 10       | 15   | 4    | 0    | 29   | 2        | 48   | 0    | 0    | 50   |
| +45 mins.    | 1        | 17   | 50   | 0    | 68   | 93       | 94   | 16   | 0    | 203  | 10       | 6    | 3    | 0    | 19   | 3        | 85   | 1    | 0    | 89   |
| Total Volume | 2        | 45   | 214  | 0    | 261  | 383      | 337  | 58   | 0    | 778  | 34       | 47   | 10   | 0    | 91   | 10       | 221  | 2    | 0    | 233  |
| % App. Total | 0.8      | 17.2 | 82   | 0    |      | 49.2     | 43.3 | 7.5  | 0    |      | 37.4     | 51.6 | 11   | 0    |      | 4.3      | 94.8 | 0.9  | 0    |      |
| PHF          | .500     | .662 | .836 | .000 | .870 | .878     | .896 | .853 | .000 | .931 | .850     | .783 | .625 | .000 | .784 | .625     | .650 | .500 | .000 | .654 |



# Huitt-Zollars, Inc.

333 Rio Rancho Drive NW, Suite 101  
Rio Rancho, NM 87124  
*ADVANCEDDESIGN*

File Name : SCE0UNV-RAIN\_03-17-22\_0  
Site Code : 00000000  
Start Date : 3/17/2022  
Page No : 8





# **APPENDIX D**

## **Historical Linear Regression**

**April 15, 2022**

[illegible]

# **APPENDIX E**

## **NCHRP Report 684 Internal Capture Estimator**



| NCHRP 684 Internal Trip Capture Estimation Tool |                               |               |                    |  |  |
|-------------------------------------------------|-------------------------------|---------------|--------------------|--|--|
| Project Name:                                   | Volcano Cliff Development TIA | Organization: | Huitt-Zollars      |  |  |
| Project Location:                               | Albuquerque                   | Performed By: | Nancy Lopez        |  |  |
| Scenario Description:                           | Retail - Residential          | Date:         | 4/15/2022          |  |  |
| Analysis Year:                                  | 2022                          | Checked By:   | Alejandra Gallegos |  |  |
| Analysis Period:                                | AM Street Peak Hour           | Date:         | 4/15/2022          |  |  |

| Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate) |                                         |          |       |                                      |          |         |
|------------------------------------------------------------------------------|-----------------------------------------|----------|-------|--------------------------------------|----------|---------|
| Land Use                                                                     | Development Data (For Information Only) |          |       | Estimated Vehicle-Trips <sup>3</sup> |          |         |
|                                                                              | ITE LUCs <sup>1</sup>                   | Quantity | Units | Total                                | Entering | Exiting |
| Office                                                                       |                                         |          |       | 0                                    |          |         |
| Retail                                                                       |                                         |          |       | 105                                  | 66       | 39      |
| Restaurant                                                                   |                                         |          |       | 0                                    |          |         |
| Cinema/Entertainment                                                         |                                         |          |       | 0                                    |          |         |
| Residential                                                                  |                                         |          |       | 82                                   | 19       | 63      |
| Hotel                                                                        |                                         |          |       | 0                                    |          |         |
| All Other Land Uses <sup>2</sup>                                             |                                         |          |       | 0                                    |          |         |
|                                                                              |                                         |          |       | 187                                  | 85       | 102     |

| Table 2-A: Mode Split and Vehicle Occupancy Estimates |                        |           |                 |                        |           |                 |
|-------------------------------------------------------|------------------------|-----------|-----------------|------------------------|-----------|-----------------|
| Land Use                                              | Entering Trips         |           |                 | Exiting Trips          |           |                 |
|                                                       | Veh. Occ. <sup>4</sup> | % Transit | % Non-Motorized | Veh. Occ. <sup>4</sup> | % Transit | % Non-Motorized |
| Office                                                |                        |           |                 |                        |           |                 |
| Retail                                                | 1.17                   | 1%        | 4%              | 1.16                   | 1%        | 4%              |
| Restaurant                                            |                        |           |                 |                        |           |                 |
| Cinema/Entertainment                                  |                        |           |                 |                        |           |                 |
| Residential                                           | 1.13                   | 1%        | 4%              | 1.09                   | 0%        | 2%              |
| Hotel                                                 |                        |           |                 |                        |           |                 |
| All Other Land Uses <sup>2</sup>                      |                        |           |                 |                        |           |                 |

| Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance) |                  |        |            |                      |             |       |
|---------------------------------------------------------------------------|------------------|--------|------------|----------------------|-------------|-------|
| Origin (From)                                                             | Destination (To) |        |            |                      |             |       |
|                                                                           | Office           | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office                                                                    |                  |        |            |                      |             |       |
| Retail                                                                    |                  |        |            |                      |             |       |
| Restaurant                                                                |                  |        |            |                      |             |       |
| Cinema/Entertainment                                                      |                  |        |            |                      |             |       |
| Residential                                                               |                  |        |            |                      |             |       |
| Hotel                                                                     |                  |        |            |                      |             |       |

| Table 4-A: Internal Person-Trip Origin-Destination Matrix* |                  |        |            |                      |             |       |
|------------------------------------------------------------|------------------|--------|------------|----------------------|-------------|-------|
| Origin (From)                                              | Destination (To) |        |            |                      |             |       |
|                                                            | Office           | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office                                                     |                  | 0      | 0          | 0                    | 0           | 0     |
| Retail                                                     | 0                |        | 0          | 0                    | 0           | 0     |
| Restaurant                                                 | 0                | 0      |            | 0                    | 0           | 0     |
| Cinema/Entertainment                                       | 0                | 0      | 0          |                      | 0           | 0     |
| Residential                                                | 0                | 1      | 0          | 0                    |             | 0     |
| Hotel                                                      | 0                | 0      | 0          | 0                    | 0           |       |

| Table 5-A: Computations Summary           |       |          |         |
|-------------------------------------------|-------|----------|---------|
|                                           | Total | Entering | Exiting |
| All Person-Trips                          | 212   | 98       | 114     |
| Internal Capture Percentage               | 1%    | 1%       | 1%      |
| External Vehicle-Trips <sup>5</sup>       | 178   | 80       | 98      |
| External Transit-Trips <sup>6</sup>       | 1     | 1        | 0       |
| External Non-Motorized Trips <sup>6</sup> | 7     | 4        | 3       |

| Table 6-A: Internal Trip Capture Percentages by Land Use |                |               |
|----------------------------------------------------------|----------------|---------------|
| Land Use                                                 | Entering Trips | Exiting Trips |
| Office                                                   | N/A            | N/A           |
| Retail                                                   | 1%             | 0%            |
| Restaurant                                               | N/A            | N/A           |
| Cinema/Entertainment                                     | N/A            | N/A           |
| Residential                                              | 0%             | 1%            |
| Hotel                                                    | N/A            | N/A           |

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

| NCHRP 684 Internal Trip Capture Estimation Tool |                               |  |  |               |                    |
|-------------------------------------------------|-------------------------------|--|--|---------------|--------------------|
| Project Name:                                   | Volcano Cliff Development TIA |  |  | Organization: | Huitt-Zollars      |
| Project Location:                               | Albuquerque                   |  |  | Performed By: | Nancy Lopez        |
| Scenario Description:                           | Retail - Residential          |  |  | Date:         | 4/15/2022          |
| Analysis Year:                                  | 2022                          |  |  | Checked By:   | Alejandra Gallegos |
| Analysis Period:                                | PM Street Peak Hour           |  |  | Date:         | 4/15/2022          |

| Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate) |                                         |          |       |                                      |          |         |
|------------------------------------------------------------------------------|-----------------------------------------|----------|-------|--------------------------------------|----------|---------|
| Land Use                                                                     | Development Data (For Information Only) |          |       | Estimated Vehicle-Trips <sup>3</sup> |          |         |
|                                                                              | ITE LUCs <sup>1</sup>                   | Quantity | Units | Total                                | Entering | Exiting |
| Office                                                                       |                                         |          |       | 0                                    |          |         |
| Retail                                                                       |                                         |          |       | 229                                  | 113      | 116     |
| Restaurant                                                                   |                                         |          |       | 0                                    |          |         |
| Cinema/Entertainment                                                         |                                         |          |       | 0                                    |          |         |
| Residential                                                                  |                                         |          |       | 103                                  | 65       | 38      |
| Hotel                                                                        |                                         |          |       | 0                                    |          |         |
| All Other Land Uses <sup>2</sup>                                             |                                         |          |       | 0                                    |          |         |
|                                                                              |                                         |          |       | 332                                  | 178      | 154     |

| Table 2-P: Mode Split and Vehicle Occupancy Estimates |                        |           |                 |                        |           |                 |
|-------------------------------------------------------|------------------------|-----------|-----------------|------------------------|-----------|-----------------|
| Land Use                                              | Entering Trips         |           |                 | Exiting Trips          |           |                 |
|                                                       | Veh. Occ. <sup>4</sup> | % Transit | % Non-Motorized | Veh. Occ. <sup>4</sup> | % Transit | % Non-Motorized |
| Office                                                |                        |           |                 |                        |           |                 |
| Retail                                                | 1.21                   | 0%        | 0%              | 1.18                   | 0%        | 0%              |
| Restaurant                                            |                        |           |                 |                        |           |                 |
| Cinema/Entertainment                                  |                        |           |                 |                        |           |                 |
| Residential                                           | 1.15                   | 1%        | 3%              | 1.21                   | 0%        | 4%              |
| Hotel                                                 |                        |           |                 |                        |           |                 |
| All Other Land Uses <sup>2</sup>                      |                        |           |                 |                        |           |                 |

| Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance) |                  |        |            |                      |             |       |
|---------------------------------------------------------------------------|------------------|--------|------------|----------------------|-------------|-------|
| Origin (From)                                                             | Destination (To) |        |            |                      |             |       |
|                                                                           | Office           | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office                                                                    |                  | 0      | 0          |                      | 0           |       |
| Retail                                                                    |                  |        |            |                      | 865         |       |
| Restaurant                                                                |                  |        |            |                      | 0           |       |
| Cinema/Entertainment                                                      |                  |        |            |                      | 0           |       |
| Residential                                                               |                  | 865    | 0          |                      |             |       |
| Hotel                                                                     |                  |        |            |                      | 0           |       |

| Table 4-P: Internal Person-Trip Origin-Destination Matrix* |                  |        |            |                      |             |       |
|------------------------------------------------------------|------------------|--------|------------|----------------------|-------------|-------|
| Origin (From)                                              | Destination (To) |        |            |                      |             |       |
|                                                            | Office           | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office                                                     |                  | 0      | 0          | 0                    | 0           | 0     |
| Retail                                                     | 0                |        | 0          | 0                    | 35          | 0     |
| Restaurant                                                 | 0                | 0      |            | 0                    | 0           | 0     |
| Cinema/Entertainment                                       | 0                | 0      | 0          |                      | 0           | 0     |
| Residential                                                | 0                | 11     | 0          | 0                    |             | 0     |
| Hotel                                                      | 0                | 0      | 0          | 0                    | 0           |       |

| Table 5-P: Computations Summary           |       |          |         |
|-------------------------------------------|-------|----------|---------|
|                                           | Total | Entering | Exiting |
| All Person-Trips                          | 395   | 212      | 183     |
| Internal Capture Percentage               | 23%   | 22%      | 25%     |
| External Vehicle-Trips <sup>5</sup>       | 252   | 138      | 114     |
| External Transit-Trips <sup>6</sup>       | 0     | 0        | 0       |
| External Non-Motorized Trips <sup>6</sup> | 2     | 1        | 1       |

| Table 6-P: Internal Trip Capture Percentages by Land Use |                |               |
|----------------------------------------------------------|----------------|---------------|
| Land Use                                                 | Entering Trips | Exiting Trips |
| Office                                                   | N/A            | N/A           |
| Retail                                                   | 8%             | 26%           |
| Restaurant                                               | N/A            | N/A           |
| Cinema/Entertainment                                     | N/A            | N/A           |
| Residential                                              | 47%            | 24%           |
| Hotel                                                    | N/A            | N/A           |

|                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <sup>1</sup> Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.                                  |
| <sup>2</sup> Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.        |
| <sup>3</sup> Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i> ).                                          |
| <sup>4</sup> Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be |
| <sup>5</sup> Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.                                                     |
| <sup>6</sup> Person-Trips                                                                                                                                        |
| *Indicates computation that has been rounded to the nearest whole number.                                                                                        |
| Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1                                                                             |

# **APPENDIX F**

## **Traffic Distribution**



**LEGEND**

■ Volcano Cliffs Subdivision

**Map Labels:**

- Paradise Blvd NW
- Paseo Del Norte Blvd NE
- Dellyne Ave NW
- Unser Blvd NW
- Montano Rd NW
- Volcano Cliffs Subdivision

**Lot Percentages:**

- A-100%
- A-75% B-25%
- B-100%
- B-5% C-55% F-40%
- C-100%
- C-100%
- D-100%
- D-100%
- D-100%
- D-50% G-50%
- D-15% G-85%
- D-10% G-90%
- E-95%
- F-5%
- F-100%
- G-100%
- G-100%
- G-100%
- G-100%
- G-100%
- G-100%

- HUITT-ZOLLARS

TRIP DISTRIBUTION TABLE

Volcano Cliff Subdivision

Sub Area Employment Data:

For determination of Trip Distribution for Proposed Single-Family Attached Housing

2016 and 2040 Data Taken from Mid-Region Council of Governments 2040

Socioeconomic Forecasts by Data Analysis Subsozes for the Mid-Region of New Mexico

| DASZ # | % SUB AREA | 2016       | 2040       | Interpolated | Employment in Study | Dist. (Mi.) | Employment/D istance | % Employment/ Distance | A           |                              |            | B           |                              |            | C           |                              |            | D           |                              |            | E           |                              |            | F           |                              |            | G           |                              |            |
|--------|------------|------------|------------|--------------|---------------------|-------------|----------------------|------------------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------------|------------------------------|------------|
|        |            | Employment | Employment |              |                     |             |                      |                        | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment |
|        |            | 2016       | 2040       | 2023         |                     |             |                      |                        |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |
| 6318   | 100%       | 15         | 96         | 2885         | 2885                | 0.65        | 4439                 | 66.27%                 |             |                              |            |             |                              |            |             |                              | 50%        | 33.13%      | 2219                         |            |             |                              |            |             | 50%                          | 33.13%     | 2219        |                              |            |
| 6334   | 100%       | 52         | 217        | 100          | 100                 | 0.89        | 113                  | 1.68%                  |             |                              |            |             |                              | 100%       | 1.7%        | 113                          |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |
| 6313   | 100%       | 172        | 196        | 179          | 179                 | 0.18        | 994                  | 14.85%                 |             |                              |            |             |                              | 100%       | 14.8%       | 994                          |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |
| 6396   | 99.8%      | 10         | 22         | 14           | 13                  | 1.29        | 10                   | 0.16%                  |             |                              |            |             |                              |            |             |                              | 100%       | 0.16%       | 10                           |            |             |                              |            |             |                              |            |             |                              |            |
| 6397   | 96%        | 254        | 278        | 261          | 251                 | 1.39        | 180                  | 2.69%                  | 80%         | 2.2%                         | 144        |             |                              |            |             |                              | 20%        | 0.54%       | 36                           |            |             |                              |            |             |                              |            |             |                              |            |
| 6317   | 100%       | 5          | 5          | 5            | 5                   | 0.85        | 6                    | 0.09%                  |             |                              |            |             |                              |            |             |                              | 15%        | 0.01%       | 1                            |            |             |                              |            |             | 85%                          | 0.07%      | 5           |                              |            |
| 6333   | 65%        | 120        | 126        | 122          | 79                  | 1.63        | 49                   | 0.73%                  | 75%         | 0.5%                         | 36         | 25%         | 0.2%                         | 12         |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |
| 6332   | 42%        | 101        | 101        | 101          | 42                  | 1.65        | 26                   | 0.38%                  |             |                              |            | 100%        | 0.4%                         | 26         |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |
| 6336   | 24%        | 21         | 21         | 21           | 5                   | 1.83        | 3                    | 0.04%                  |             |                              |            | 100%        | 0.0%                         | 3          |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |
| 6316   | 41%        | 59         | 60         | 59           | 24                  | 1.35        | 18                   | 0.27%                  |             |                              |            | 5%          | 0.0%                         | 1          | 55%         | 0.1%                         | 10         |             |                              |            |             |                              | 40%        | 0.11%       | 7                            |            |             |                              |            |
| 6315   | 70%        | 25         | 26         | 25           | 18                  | 1.31        | 14                   | 0.20%                  |             |                              |            |             |                              |            |             |                              |            |             | 95%                          | 0.19%      | 13          | 5%                           | 0.01%      | 1           |                              |            |             |                              |            |
| 6228   | 100%       | 137        | 137        | 137          | 137                 | 1.15        | 119                  | 1.78%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 1.78%      | 119         |                              |            |
| 6241   | 67%        | 105        | 102        | 104          | 70                  | 1.5         | 47                   | 0.69%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 0.69%      | 47          |                              |            |
| 6395   | 61%        | 0          | 0          | 0            | 0                   | 1.82        | 0                    | 0.00%                  |             |                              |            |             |                              |            |             |                              | 100%       | 0.00%       | 0                            |            |             |                              |            |             |                              |            |             |                              |            |
| 6393   | 11%        | 66         | 123        | 83           | 9                   | 1.91        | 5                    | 0.07%                  |             |                              |            |             |                              |            |             |                              | 100%       | 0.07%       | 5                            |            |             |                              |            |             |                              |            |             |                              |            |
| 6398   | 61%        | 211        | 226        | 215          | 131                 | 1.72        | 76                   | 1.14%                  | 100%        | 1.1%                         | 76         |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |
| 6223   | 69%        | 348        | 366        | 353          | 244                 | 1.79        | 136                  | 2.03%                  |             |                              |            |             |                              |            |             |                              | 100%       | 2.03%       | 136                          |            |             |                              |            |             |                              |            |             |                              |            |
| 6222   | 50%        | 81         | 75         | 79           | 40                  | 1.87        | 21                   | 0.32%                  |             |                              |            |             |                              |            |             |                              | 10%        | 0.03%       | 2                            |            |             |                              |            |             | 90%                          | 0.28%      | 19          |                              |            |
| 6335   | 100%       | 6          | 6          | 6            | 6                   | 1.26        | 5                    | 0.07%                  |             |                              |            | 100%        | 0.1%                         | 5          |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |
| 6226   | 100%       | 237        | 256        | 243          | 243                 | 1.54        | 157                  | 2.35%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 2.35%      | 157         |                              |            |
| 6227   | 100%       | 66         | 70         | 67           | 67                  | 1.45        | 46                   | 0.69%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 0.69%      | 46          |                              |            |
| 6314   | 2%         | 0          | 0          | 0            | 0                   | 1.48        | 0                    | 0.00%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 0.00%      | 0           |                              |            |
| 6242   | 77%        | 110        | 123        | 114          | 88                  | 1.78        | 49                   | 0.73%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 0.73%      | 49          |                              |            |
| 6225   | 78%        | 307        | 341        | 317          | 247                 | 1.75        | 141                  | 2.11%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 2.11%      | 141         |                              |            |
| 6399   | 30%        | 256        | 274        | 261          | 78                  | 1.77        | 44                   | 0.66%                  | 100%        | 0.7%                         | 44         |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |
| TOTAL  |            |            |            |              | 4961                |             | 6698                 |                        |             | 4.5%                         |            |             | 0.7%                         |            | 16.7%       |                              | 36.0%      |             | 0.2%                         |            | 0.1%        |                              |            |             |                              | 41.8%      |             |                              |            |

TRIP DISTRIBUTION TABLE

Volcano Cliff Subdivision  
Sub Area Employment Data:  
For determination of Trip Distribution for Proposed Multifamily Housing (Low Rise)  
2016 and 2040 Data Taken from Mid-Region Council of Governments 2040  
Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

| DASZ # | % SUB AREA | 2016 Employment | 2040 Employment | Interpolated | Employment in Study | Dist. (Mi.) | Employment/ Distance | % Employment/ Distance | A           |                              |            | B           |                              |            | C           |                              |            | D           |                              |            | E           |                              |            | F           |                              |            | G     |    |  |
|--------|------------|-----------------|-----------------|--------------|---------------------|-------------|----------------------|------------------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------------|------------------------------|------------|-------|----|--|
|        |            |                 |                 |              |                     |             |                      |                        | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment | % Utilizing | % Employment/ Dist Utilizing | Employment |       |    |  |
|        |            | 2016            | 2040            | 2025         |                     |             |                      |                        |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |       |    |  |
| 6318   | 100%       | 15              | 96              | 2885         | 2885                | 0.65        | 4439                 | 65.94%                 |             |                              |            |             |                              |            |             |                              | 50%        | 32.97%      | 2219                         |            |             |                              |            |             | 50%                          | 32.97%     | 2219  |    |  |
| 6334   | 100%       | 52              | 217             | 114          | 114                 | 0.89        | 128                  | 1.90%                  |             |                              |            |             |                              |            |             | 100%                         | 1.9%       | 128         |                              |            |             |                              |            |             |                              |            |       |    |  |
| 6313   | 100%       | 172             | 196             | 181          | 181                 | 0.18        | 1006                 | 14.94%                 |             |                              |            |             |                              |            |             | 100%                         | 14.9%      | 1006        |                              |            |             |                              |            |             |                              |            |       |    |  |
| 6396   | 99.8%      | 10              | 22              | 15           | 14                  | 1.29        | 11                   | 0.17%                  |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 0.17%      | 11          |                              |            |             |                              |            |       |    |  |
| 6397   | 96%        | 254             | 278             | 263          | 252                 | 1.39        | 182                  | 2.70%                  | 80%         | 2.2%                         | 145        |             |                              |            |             |                              |            | 20%         | 0.54%                        | 36         |             |                              |            |             |                              |            |       |    |  |
| 6317   | 100%       | 5               | 5               | 5            | 5                   | 0.85        | 6                    | 0.09%                  |             |                              |            |             |                              |            |             |                              |            | 15%         | 0.01%                        | 1          |             |                              |            |             |                              | 85%        | 0.07% | 5  |  |
| 6333   | 65%        | 120             | 126             | 122          | 80                  | 1.63        | 49                   | 0.73%                  | 75%         | 0.5%                         | 37         | 25%         | 0.2%                         | 12         |             |                              |            |             |                              |            |             |                              |            |             |                              |            |       |    |  |
| 6332   | 42%        | 101             | 101             | 101          | 42                  | 1.65        | 26                   | 0.38%                  |             |                              |            | 100%        | 0.4%                         | 26         |             |                              |            |             |                              |            |             |                              |            |             |                              |            |       |    |  |
| 6336   | 24%        | 21              | 21              | 21           | 5                   | 1.83        | 3                    | 0.04%                  |             |                              |            | 100%        | 0.0%                         | 3          |             |                              |            |             |                              |            |             |                              |            |             |                              |            |       |    |  |
| 6316   | 41%        | 59              | 60              | 59           | 24                  | 1.35        | 18                   | 0.27%                  |             |                              |            | 5%          | 0.0%                         | 1          | 55%         | 0.1%                         | 10         |             |                              |            |             |                              | 40%        | 0.11%       | 7                            |            |       |    |  |
| 6315   | 70%        | 25              | 26              | 25           | 18                  | 1.31        | 14                   | 0.20%                  |             |                              |            |             |                              |            |             |                              |            |             |                              | 95%        | 0.19%       | 13                           | 5%         | 0.01%       | 1                            |            |       |    |  |
| 6228   | 100%       | 137             | 137             | 137          | 137                 | 1.15        | 119                  | 1.77%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 1.77%      | 119   |    |  |
| 6241   | 67%        | 105             | 102             | 104          | 70                  | 1.5         | 46                   | 0.69%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 0.69%      | 46    |    |  |
| 6395   | 61%        | 0               | 0               | 0            | 0                   | 1.82        | 0                    | 0.00%                  |             |                              |            |             |                              |            |             |                              |            | 100%        | 0.00%                        | 0          |             |                              |            |             |                              |            |       |    |  |
| 6393   | 11%        | 66              | 123             | 87           | 10                  | 1.91        | 5                    | 0.07%                  |             |                              |            |             |                              |            |             |                              |            | 100%        | 0.07%                        | 5          |             |                              |            |             |                              |            |       |    |  |
| 6398   | 61%        | 211             | 226             | 217          | 132                 | 1.72        | 77                   | 1.14%                  | 100%        | 1.1%                         | 77         |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |       |    |  |
| 6223   | 69%        | 348             | 366             | 355          | 245                 | 1.79        | 137                  | 2.03%                  |             |                              |            |             |                              |            |             |                              |            | 100%        | 2.03%                        | 137        |             |                              |            |             |                              |            |       |    |  |
| 6222   | 50%        | 81              | 75              | 79           | 39                  | 1.87        | 21                   | 0.31%                  |             |                              |            |             |                              |            |             |                              |            | 10%         | 0.03%                        | 2          |             |                              |            |             |                              | 90%        | 0.28% | 19 |  |
| 6335   | 100%       | 6               | 6               | 6            | 6                   | 1.26        | 5                    | 0.07%                  |             |                              |            | 100%        | 0.1%                         | 5          |             |                              |            |             |                              |            |             |                              |            |             |                              |            |       |    |  |
| 6226   | 100%       | 237             | 256             | 244          | 244                 | 1.54        | 159                  | 2.35%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 2.35%      | 159   |    |  |
| 6227   | 100%       | 66              | 70              | 68           | 68                  | 1.45        | 47                   | 0.69%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 0.69%      | 47    |    |  |
| 6314   | 2%         | 0               | 0               | 0            | 0                   | 1.48        | 0                    | 0.00%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 0.00%      | 0     |    |  |
| 6242   | 77%        | 110             | 123             | 115          | 88                  | 1.78        | 50                   | 0.74%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 0.74%      | 50    |    |  |
| 6225   | 78%        | 307             | 341             | 320          | 249                 | 1.75        | 143                  | 2.12%                  |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             | 100%                         | 2.12%      | 143   |    |  |
| 6399   | 30%        | 256             | 274             | 263          | 79                  | 1.77        | 45                   | 0.66%                  | 100%        | 0.7%                         | 45         |             |                              |            |             |                              |            |             |                              |            |             |                              |            |             |                              |            |       |    |  |
|        |            |                 |                 |              | 4988                |             | 6732                 |                        |             | 4.5%                         |            |             | 0.7%                         |            |             | 17.0%                        |            |             | 35.8%                        |            |             | 0.2%                         |            |             | 0.1%                         |            | 41.7% |    |  |



TRIP DISTRIBUTION TABLE

Volcano Cliff Subdivision

Sub Area Employment Data:

For determination of Trip Distribution for Proposed Retail Commercial

2016 and 2040 Data Taken from Mid-Region Council of Governments 2040

Socioeconomic Forecasts by Data Analysis Subsozes for the Mid-Region of New Mexico

|        |            |                 |                 |              |                     |                    | A           |                        |            | B           |                                 |            | C           |                                 |            | D           |                                 |            | E           |                                 |            | F           |                                 |            | G           |                                 |            |
|--------|------------|-----------------|-----------------|--------------|---------------------|--------------------|-------------|------------------------|------------|-------------|---------------------------------|------------|-------------|---------------------------------|------------|-------------|---------------------------------|------------|-------------|---------------------------------|------------|-------------|---------------------------------|------------|-------------|---------------------------------|------------|
| DASZ # | % SUB AREA | 2016 Population | 2040 Population | Interpolated | Population in Study | Percent Population | % Utilizing | % Population Utilizing | Population | % Utilizing | % Employment/<br>Dist Utilizing | Employment | % Utilizing | % Employment/<br>Dist Utilizing | Employment | % Utilizing | % Employment/<br>Dist Utilizing | Employment | % Utilizing | % Employment/<br>Dist Utilizing | Employment | % Utilizing | % Employment/<br>Dist Utilizing | Employment | % Utilizing | % Employment/<br>Dist Utilizing | Employment |
|        |            | 2016            | 2040            | 2023         |                     |                    |             |                        |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
| 6318   | 100%       | 385             | 606             | 449          | 449                 | 0.016720664        |             |                        |            |             |                                 |            |             |                                 |            | 50%         | 0.008360332                     | 22500%     |             |                                 |            |             |                                 | 50%        | 0.008360332 | 22500%                          |            |
| 6334   | 100%       | 2959            | 2762            | 2902         | 2902                | 0.108069862        |             |                        |            |             |                                 |            | 100.0%      | 0.108069862                     | 290200%    |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
| 6313   | 100%       | 0               | 0               | 0            | 0                   | 0                  |             |                        |            |             |                                 |            | 100.0%      | 0                               | 0%         |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
| 6396   | 99.8%      | 545             | 515             | 536          | 535                 | 0.019923286        |             |                        |            |             |                                 |            |             |                                 |            | 100.0%      | 0.019923286                     | 53500%     |             |                                 |            |             |                                 |            |             |                                 |            |
| 6397   | 96%        | 1215            | 1653            | 1343         | 1296                | 0.048262764        | 1           | 3.86%                  | 103700%    |             |                                 |            |             |                                 |            | 20.0%       | 0.009652553                     | 25900%     |             |                                 |            |             |                                 |            |             |                                 |            |
| 6317   | 100%       | 93              | 291             | 151          | 151                 | 0.005623208        |             |                        |            |             |                                 |            |             |                                 |            | 15.0%       | 0.000843481                     | 2300%      |             |                                 |            |             |                                 | 85%        | 0.004779727 | 12800%                          |            |
| 6333   | 63%        | 4085            | 3489            | 3911         | 2471                | 0.092019514        | 1           | 6.90%                  | 185300%    | 25.0%       | 0.023004878                     | 61800%     |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
| 6332   | 42%        | 5358            | 4356            | 5066         | 2141                | 0.079730384        |             |                        |            | 100.0%      | 0.079730384                     | 214100%    |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
| 6336   | 24%        | 2767            | 2219            | 2607         | 620                 | 0.023088668        |             |                        |            | 100.0%      | 0.023088668                     | 62000%     |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
| 6316   | 41%        | 89              | 2325            | 741          | 307                 | 0.011432615        |             |                        |            | 5.0%        | 0.000571631                     | 1500%      | 55.0%       | 0.006287938                     | 16900%     |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
| 6315   | 70%        | 2403            | 2368            | 2393         | 1679                | 0.062525602        |             |                        |            |             |                                 |            |             |                                 |            |             |                                 |            | 0.95        | 0.059399322                     | 159500%    | 5.00%       | 0.004573046                     | 12300%     | 8400%       |                                 |            |
| 6228   | 100%       | 1523            | 1503            | 1517         | 1517                | 0.056492757        |             |                        |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 | 100%       | 0.056492757 | 151700%                         |            |
| 6241   | 67%        | 2409            | 2303            | 2378         | 1585                | 0.059025062        |             |                        |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 | 100%       | 0.059025062 | 158500%                         |            |
| 6395   | 61%        | 0               | 26              | 8            | 5                   | 0.000186199        |             |                        |            |             |                                 |            |             |                                 |            | 100.0%      | 0.000186199                     | 500%       |             |                                 |            |             |                                 |            |             |                                 |            |
| 6393   | 11%        | 1271            | 1372            | 1300         | 144                 | 0.005362529        |             |                        |            |             |                                 |            |             |                                 |            | 100.0%      | 0.005362529                     | 14400%     |             |                                 |            |             |                                 |            |             |                                 |            |
| 6398   | 61%        | 2584            | 2488            | 2556         | 1555                | 0.057907869        | 1           | 5.79%                  | 155500%    |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
| 6223   | 69%        | 921             | 862             | 904          | 621                 | 0.023125908        |             |                        |            |             |                                 |            |             |                                 |            | 100.0%      | 0.023125908                     | 62100%     |             |                                 |            |             |                                 |            |             |                                 |            |
| 6222   | 50%        | 2939            | 2960            | 2945         | 1458                | 0.054295609        |             |                        |            |             |                                 |            |             |                                 |            | 10.0%       | 0.005429561                     | 14600%     |             |                                 |            |             |                                 |            | 90%         | 0.048866048                     | 131200%    |
| 6335   | 100%       | 546             | 582             | 557          | 557                 | 0.020742561        |             |                        |            | 100.0%      | 0.020742561                     | 55700%     |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
| 6226   | 100%       | 1563            | 1485            | 1540         | 1540                | 0.057349272        |             |                        |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 | 100%       | 0.057349272 | 154000%                         |            |
| 6227   | 100%       | 1834            | 1777            | 1817         | 1817                | 0.067664693        |             |                        |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 | 100%       | 0.067664693 | 181700%                         |            |
| 6314   | 2%         | 0               | 1               | 0            | 0                   | 0                  |             |                        |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 | 100%       | 0           | 0%                              |            |
| 6242   | 77%        | 1829            | 1927            | 1858         | 1431                | 0.053290135        |             |                        |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 | 100%       | 0.053290135 | 143100%                         |            |
| 6225   | 78%        | 1784            | 1905            | 1819         | 1421                | 0.052917737        |             |                        |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 | 100%       | 0.052917737 | 142100%                         |            |
| 6399   | 30%        | 2232            | 2058            | 2181         | 651                 | 0.024243101        | 1           | 2.42%                  | 65100%     |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |             |                                 |            |
|        |            |                 |                 |              | 26853               |                    |             | 0.19                   |            |             | 14.7%                           |            |             | 11.4%                           |            |             | 7.3%                            |            |             | 5.9%                            |            |             | 0.8%                            |            |             | 40.9%                           |            |

# **APPENDIX G**

## **Existing 2022 Synchro Reports**

Existing 2022 AM  
1: Universe Blvd & Paseo Del Norte Blvd

Lanes, Volumes, Timings  
04/14/2022

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 140                                                                               | 333                                                                               | 57                                                                                | 71                                                                                | 152                                                                               | 120                                                                               | 9                                                                                   | 198                                                                                 | 89                                                                                  | 278                                                                                 | 455                                                                                 | 237                                                                                 |
| Future Volume (vph)        | 140                                                                               | 333                                                                               | 57                                                                                | 71                                                                                | 152                                                                               | 120                                                                               | 9                                                                                   | 198                                                                                 | 89                                                                                  | 278                                                                                 | 455                                                                                 | 237                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.936                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1744                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.148                                                                             |                                                                                   |                                                                                   | 0.197                                                                             |                                                                                   |                                                                                   | 0.340                                                                               |                                                                                     |                                                                                     | 0.482                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 276                                                                               | 1863                                                                              | 1583                                                                              | 367                                                                               | 1744                                                                              | 0                                                                                 | 633                                                                                 | 1863                                                                                | 1583                                                                                | 898                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 124                                                                               |                                                                                   | 31                                                                                |                                                                                   |                                                                                     |                                                                                     | 164                                                                                 |                                                                                     |                                                                                     | 269                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                                | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 167                                                                               | 406                                                                               | 72                                                                                | 116                                                                               | 220                                                                               | 164                                                                               | 20                                                                                  | 251                                                                                 | 151                                                                                 | 320                                                                                 | 583                                                                                 | 269                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 167                                                                               | 406                                                                               | 72                                                                                | 116                                                                               | 384                                                                               | 0                                                                                 | 20                                                                                  | 251                                                                                 | 151                                                                                 | 320                                                                                 | 583                                                                                 | 269                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



Existing 2022 AM  
1: Universe Blvd & Paseo Del Norte Blvd

Lanes, Volumes, Timings  
04/14/2022

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   | 8                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 20.0                                                                              | 20.0                                                                              | 3.0                                                                               | 20.0                                                                              |                                                                                   | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                |
| Minimum Split (s)       | 9.5                                                                               | 34.5                                                                              | 34.5                                                                              | 9.5                                                                               | 25.5                                                                              |                                                                                   | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                |
| Total Split (s)         | 17.0                                                                              | 32.0                                                                              | 32.0                                                                              | 13.0                                                                              | 29.0                                                                              |                                                                                   | 13.0                                                                                | 45.0                                                                                | 45.0                                                                                | 19.0                                                                                | 51.0                                                                                | 51.0                                                                                |
| Total Split (%)         | 15.5%                                                                             | 29.1%                                                                             | 29.1%                                                                             | 11.8%                                                                             | 26.4%                                                                             |                                                                                   | 11.8%                                                                               | 40.9%                                                                               | 40.9%                                                                               | 17.3%                                                                               | 46.4%                                                                               | 46.4%                                                                               |
| Maximum Green (s)       | 13.5                                                                              | 26.5                                                                              | 26.5                                                                              | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 40.0                                                                                | 40.0                                                                                | 15.5                                                                                | 46.0                                                                                | 46.0                                                                                |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              |                                                                                   | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |
| Walk Time (s)           |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)     |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                   | 12.0                                                                              |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 9.0                                                                                 | 9.0                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |
| Act Effect Green (s)    | 40.6                                                                              | 27.9                                                                              | 27.9                                                                              | 35.3                                                                              | 25.2                                                                              |                                                                                   | 49.0                                                                                | 42.9                                                                                | 42.9                                                                                | 61.5                                                                                | 56.5                                                                                | 56.5                                                                                |
| Actuated g/C Ratio      | 0.37                                                                              | 0.25                                                                              | 0.25                                                                              | 0.32                                                                              | 0.23                                                                              |                                                                                   | 0.45                                                                                | 0.39                                                                                | 0.39                                                                                | 0.56                                                                                | 0.51                                                                                | 0.51                                                                                |
| v/c Ratio               | 0.67                                                                              | 0.86                                                                              | 0.15                                                                              | 0.53                                                                              | 0.91                                                                              |                                                                                   | 0.06                                                                                | 0.35                                                                                | 0.21                                                                                | 0.53                                                                                | 0.61                                                                                | 0.28                                                                                |
| Control Delay           | 37.2                                                                              | 58.4                                                                              | 1.5                                                                               | 31.8                                                                              | 65.1                                                                              |                                                                                   | 12.7                                                                                | 26.3                                                                                | 3.8                                                                                 | 16.8                                                                                | 23.6                                                                                | 3.0                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 37.2                                                                              | 58.4                                                                              | 1.5                                                                               | 31.8                                                                              | 65.1                                                                              |                                                                                   | 12.7                                                                                | 26.3                                                                                | 3.8                                                                                 | 16.8                                                                                | 23.6                                                                                | 3.0                                                                                 |
| LOS                     | D                                                                                 | E                                                                                 | A                                                                                 | C                                                                                 | E                                                                                 |                                                                                   | B                                                                                   | C                                                                                   | A                                                                                   | B                                                                                   | C                                                                                   | A                                                                                   |
| Approach Delay          |                                                                                   | 46.5                                                                              |                                                                                   |                                                                                   | 57.4                                                                              |                                                                                   |                                                                                     | 17.6                                                                                |                                                                                     |                                                                                     | 17.0                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 79                                                                                | 273                                                                               | 0                                                                                 | 53                                                                                | 244                                                                               |                                                                                   | 6                                                                                   | 128                                                                                 | 0                                                                                   | 118                                                                                 | 265                                                                                 | 0                                                                                   |
| Queue Length 95th (ft)  | 120                                                                               | #377                                                                              | 0                                                                                 | 61                                                                                | 259                                                                               |                                                                                   | 9                                                                                   | 169                                                                                 | 0                                                                                   | 169                                                                                 | 359                                                                                 | 41                                                                                  |
| Internal Link Dist (ft) |                                                                                   | 127                                                                               |                                                                                   |                                                                                   | 462                                                                               |                                                                                   |                                                                                     | 201                                                                                 |                                                                                     |                                                                                     | 642                                                                                 |                                                                                     |
| Turn Bay Length (ft)    |                                                                                   |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   |                                                                                   | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Base Capacity (vph)     | 287                                                                               | 475                                                                               | 496                                                                               | 243                                                                               | 422                                                                               |                                                                                   | 408                                                                                 | 727                                                                                 | 718                                                                                 | 624                                                                                 | 957                                                                                 | 944                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.58                                                                              | 0.85                                                                              | 0.15                                                                              | 0.48                                                                              | 0.91                                                                              |                                                                                   | 0.05                                                                                | 0.35                                                                                | 0.21                                                                                | 0.51                                                                                | 0.61                                                                                | 0.28                                                                                |

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 31.4

Intersection LOS: C

Intersection Capacity Utilization 68.6%

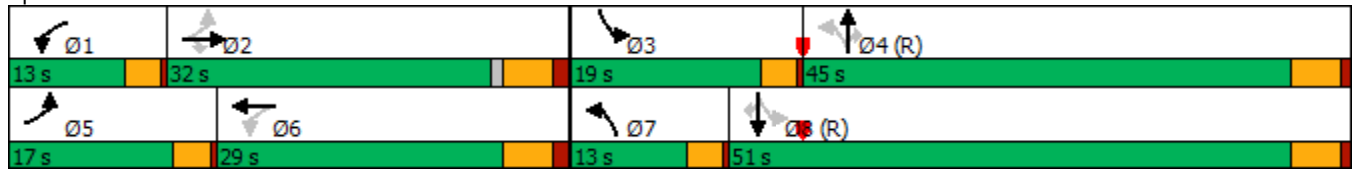
ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 11                                                                                | 25                                                                                | 53                                                                                | 154                                                                               | 541                                                                               | 125                                                                               |
| Future Vol, veh/h        | 11                                                                                | 25                                                                                | 53                                                                                | 154                                                                               | 541                                                                               | 125                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 28                                                                                | 56                                                                                | 108                                                                               | 167                                                                               | 588                                                                               | 266                                                                               |

| Major/Minor          | Minor2 | Major1 | Major2 |   |   |   |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 971    | 588    | 854    | 0 | - | 0 |
| Stage 1              | 588    | -      | -      | - | - | - |
| Stage 2              | 383    | -      | -      | - | - | - |
| Critical Hdwy        | 6.42   | 6.22   | 4.12   | - | - | - |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | - | - |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | - | - |
| Follow-up Hdwy       | 3.518  | 3.318  | 2.218  | - | - | - |
| Pot Cap-1 Maneuver   | 280    | 509    | 785    | - | - | - |
| Stage 1              | 555    | -      | -      | - | - | - |
| Stage 2              | 689    | -      | -      | - | - | - |
| Platoon blocked, %   |        |        |        | - | - | - |
| Mov Cap-1 Maneuver   | 241    | 509    | 785    | - | - | - |
| Mov Cap-2 Maneuver   | 241    | -      | -      | - | - | - |
| Stage 1              | 478    | -      | -      | - | - | - |
| Stage 2              | 689    | -      | -      | - | - | - |

| Approach             | EB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 15.9 | 4  | 0  |
| HCM LOS              | C    |    |    |

| Minor Lane/Major Mvmt | NBL   | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h)      | 785   | -   | 241   | 509   | -   | -   |
| HCM Lane V/C Ratio    | 0.138 | -   | 0.117 | 0.109 | -   | -   |
| HCM Control Delay (s) | 10.3  | -   | 21.9  | 12.9  | -   | -   |
| HCM Lane LOS          | B     | -   | C     | B     | -   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | 0.4   | 0.4   | -   | -   |



| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 207                                                                               | 0    | 0    | 566                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 207                                                                               | 0    | 0    | 566                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 225                                                                               | 0    | 0    | 615                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 840    | 225    | 0      |
| Stage 1              | 225    | -      | -      |
| Stage 2              | 615    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | 4.12   |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | 2.218  |
| Pot Cap-1 Maneuver   | 335    | 814    | 1344   |
| Stage 1              | 812    | -      | -      |
| Stage 2              | 539    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 335    | 814    | 1344   |
| Mov Cap-2 Maneuver   | 335    | -      | -      |
| Stage 1              | 812    | -      | -      |
| Stage 2              | 539    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT |
|-----------------------|-----|----------|------|-----|
| Capacity (veh/h)      | -   | -        | 1344 | -   |
| HCM Lane V/C Ratio    | -   | -        | -    | -   |
| HCM Control Delay (s) | -   | 0        | 0    | -   |
| HCM Lane LOS          | -   | A        | A    | -   |
| HCM 95th %tile Q(veh) | -   | -        | 0    | -   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 207                                                                               | 0    | 0    | 566                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 207                                                                               | 0    | 0    | 566                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 225                                                                               | 0    | 0    | 615                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 840    | 225    | 0      |
| Stage 1              | 225    | -      | -      |
| Stage 2              | 615    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | 4.12   |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | 2.218  |
| Pot Cap-1 Maneuver   | 335    | 814    | 1344   |
| Stage 1              | 812    | -      | -      |
| Stage 2              | 539    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 335    | 814    | 1344   |
| Mov Cap-2 Maneuver   | 335    | -      | -      |
| Stage 1              | 812    | -      | -      |
| Stage 2              | 539    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT |
|-----------------------|-----|----------|------|-----|
| Capacity (veh/h)      | -   | -        | 1344 | -   |
| HCM Lane V/C Ratio    | -   | -        | -    | -   |
| HCM Control Delay (s) | -   | 0        | 0    | -   |
| HCM Lane LOS          | -   | A        | A    | -   |
| HCM 95th %tile Q(veh) | -   | -        | 0    | -   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 207                                                                               | 0    | 0    | 566                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 207                                                                               | 0    | 0    | 566                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 225                                                                               | 0    | 0    | 615                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 840    | 225    | 0      |
| Stage 1              | 225    | -      | -      |
| Stage 2              | 615    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | 4.12   |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | 2.218  |
| Pot Cap-1 Maneuver   | 335    | 814    | 1344   |
| Stage 1              | 812    | -      | -      |
| Stage 2              | 539    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 335    | 814    | 1344   |
| Mov Cap-2 Maneuver   | 335    | -      | -      |
| Stage 1              | 812    | -      | -      |
| Stage 2              | 539    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT |
|-----------------------|-----|----------|------|-----|
| Capacity (veh/h)      | -   | -        | 1344 | -   |
| HCM Lane V/C Ratio    | -   | -        | -    | -   |
| HCM Control Delay (s) | -   | -        | 0    | -   |
| HCM Lane LOS          | -   | -        | A    | -   |
| HCM 95th %tile Q(veh) | -   | -        | 0    | -   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 207                                                                               | 0    | 0    | 566                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 207                                                                               | 0    | 0    | 566                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 225                                                                               | 0    | 0    | 615                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 840    | 225    | 0      |
| Stage 1              | 225    | -      | -      |
| Stage 2              | 615    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 335    | 814    | -      |
| Stage 1              | 812    | -      | -      |
| Stage 2              | 539    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 335    | 814    | -      |
| Mov Cap-2 Maneuver   | 335    | -      | -      |
| Stage 1              | 812    | -      | -      |
| Stage 2              | 539    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1344 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |



Existing 2022 AM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 2                                                                                 | 406                                                                               | 14                                                                                | 10                                                                                | 338                                                                               | 165                                                                               | 53                                                                                  | 40                                                                                  | 47                                                                                  | 524                                                                                 | 27                                                                                  | 15                                                                                  |
| Future Volume (vph)        | 2                                                                                 | 406                                                                               | 14                                                                                | 10                                                                                | 338                                                                               | 165                                                                               | 53                                                                                  | 40                                                                                  | 47                                                                                  | 524                                                                                 | 27                                                                                  | 15                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.992                                                                             |                                                                                   |                                                                                   | 0.959                                                                             |                                                                                   |                                                                                     | 0.920                                                                               |                                                                                     |                                                                                     | 0.925                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3511                                                                              | 0                                                                                 | 1770                                                                              | 3394                                                                              | 0                                                                                 | 1770                                                                                | 1714                                                                                | 0                                                                                   | 1770                                                                                | 1723                                                                                | 0                                                                                   |
| Flt Permitted              | 0.200                                                                             |                                                                                   |                                                                                   | 0.274                                                                             |                                                                                   |                                                                                   | 0.710                                                                               |                                                                                     |                                                                                     | 0.602                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 373                                                                               | 3511                                                                              | 0                                                                                 | 510                                                                               | 3394                                                                              | 0                                                                                 | 1323                                                                                | 1714                                                                                | 0                                                                                   | 1121                                                                                | 1723                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 57                                                                                |                                                                                   |                                                                                     | 50                                                                                  |                                                                                     |                                                                                     | 36                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 4                                                                                 | 521                                                                               | 28                                                                                | 20                                                                                | 504                                                                               | 192                                                                               | 108                                                                                 | 56                                                                                  | 64                                                                                  | 602                                                                                 | 36                                                                                  | 36                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 4                                                                                 | 549                                                                               | 0                                                                                 | 20                                                                                | 696                                                                               | 0                                                                                 | 108                                                                                 | 120                                                                                 | 0                                                                                   | 602                                                                                 | 72                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

Existing 2022 AM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)         | 16.0                                                                              | 36.0                                                                              |                                                                                   | 16.0                                                                              | 34.0                                                                              |                                                                                   | 16.0                                                                                | 24.0                                                                                |                                                                                     | 24.0                                                                                | 24.0                                                                                |                                                                                     |
| Total Split (%)         | 16.0%                                                                             | 36.0%                                                                             |                                                                                   | 16.0%                                                                             | 34.0%                                                                             |                                                                                   | 16.0%                                                                               | 24.0%                                                                               |                                                                                     | 24.0%                                                                               | 24.0%                                                                               |                                                                                     |
| Maximum Green (s)       | 12.5                                                                              | 30.5                                                                              |                                                                                   | 12.5                                                                              | 28.5                                                                              |                                                                                   | 12.5                                                                                | 18.5                                                                                |                                                                                     | 20.5                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effect Green (s)    | 28.0                                                                              | 24.3                                                                              |                                                                                   | 29.4                                                                              | 26.2                                                                              |                                                                                   | 38.5                                                                                | 29.8                                                                                |                                                                                     | 63.1                                                                                | 51.0                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.28                                                                              | 0.24                                                                              |                                                                                   | 0.29                                                                              | 0.26                                                                              |                                                                                   | 0.38                                                                                | 0.30                                                                                |                                                                                     | 0.63                                                                                | 0.51                                                                                |                                                                                     |
| v/c Ratio               | 0.02                                                                              | 0.64                                                                              |                                                                                   | 0.10                                                                              | 0.75                                                                              |                                                                                   | 0.20                                                                                | 0.22                                                                                |                                                                                     | 0.68                                                                                | 0.08                                                                                |                                                                                     |
| Control Delay           | 20.0                                                                              | 36.8                                                                              |                                                                                   | 21.8                                                                              | 35.8                                                                              |                                                                                   | 13.6                                                                                | 20.5                                                                                |                                                                                     | 17.3                                                                                | 10.4                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 20.0                                                                              | 36.8                                                                              |                                                                                   | 21.8                                                                              | 35.8                                                                              |                                                                                   | 13.6                                                                                | 20.5                                                                                |                                                                                     | 17.3                                                                                | 10.4                                                                                |                                                                                     |
| LOS                     | B                                                                                 | D                                                                                 |                                                                                   | C                                                                                 | D                                                                                 |                                                                                   | B                                                                                   | C                                                                                   |                                                                                     | B                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 36.7                                                                              |                                                                                   |                                                                                   | 35.4                                                                              |                                                                                   |                                                                                     | 17.3                                                                                |                                                                                     |                                                                                     | 16.5                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 2                                                                                 | 160                                                                               |                                                                                   | 9                                                                                 | 198                                                                               |                                                                                   | 23                                                                                  | 32                                                                                  |                                                                                     | 183                                                                                 | 10                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 4                                                                                 | 168                                                                               |                                                                                   | 12                                                                                | 162                                                                               |                                                                                   | 33                                                                                  | 63                                                                                  |                                                                                     | 374                                                                                 | 34                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                 |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 285                                                                               | 1076                                                                              |                                                                                   | 309                                                                               | 1096                                                                              |                                                                                   | 642                                                                                 | 546                                                                                 |                                                                                     | 888                                                                                 | 895                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.01                                                                              | 0.51                                                                              |                                                                                   | 0.06                                                                              | 0.64                                                                              |                                                                                   | 0.17                                                                                | 0.22                                                                                |                                                                                     | 0.68                                                                                | 0.08                                                                                |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 60 (60%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 28.0

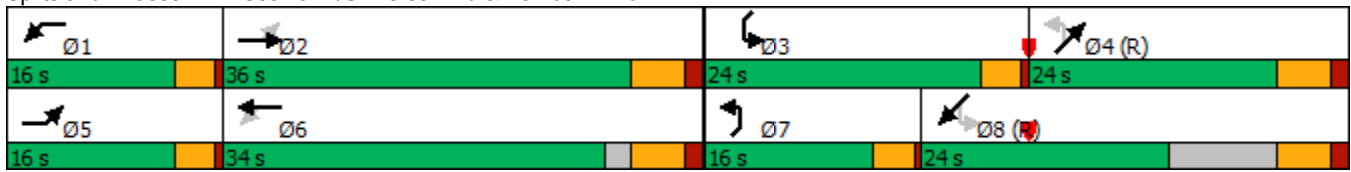
Intersection LOS: C

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



| Intersection             |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |        |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 | Minor1 |                                                                                   |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -      |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |        | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |        | 0                                                                                 |                                                                                   |       |
| HCM LOS                  | A                                                                                 |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -      | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -      | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -      | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |



| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |        |       |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL   | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |       |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free  | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -     | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -     | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92    | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2     | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 |       | Minor1                                                                            |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 1     | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12  | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -     | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -     | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218 | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1622  | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -      |       | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1622  | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -     | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |       | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |       | 0                                                                                 |                                                                                   |       |
| HCM LOS                  | A                                                                                 |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR   | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -      | -     | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -      | -     | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -      | -     | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -      | -     | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -      | -     | 0                                                                                 | -                                                                                 |       |

Intersection

Int Delay, s/veh 0

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | 1622   | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1622   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1622 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 0

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|----------|-----|-----|-----|-----|-----|-----|
|----------|-----|-----|-----|-----|-----|-----|

Lane Configurations

|                    |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------|---|---|---|---|---|---|

|                   |   |   |   |   |   |   |
|-------------------|---|---|---|---|---|---|
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------|---|---|---|---|---|---|

|                        |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------|---|---|---|---|---|---|

|              |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|
| Sign Control | Free | Free | Free | Free | Stop | Stop |
|--------------|------|------|------|------|------|------|

|                |   |      |   |      |   |      |
|----------------|---|------|---|------|---|------|
| RT Channelized | - | None | - | None | - | None |
|----------------|---|------|---|------|---|------|

|                |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|
| Storage Length | - | - | - | - | 0 | - |
|----------------|---|---|---|---|---|---|

|                          |   |   |   |   |   |   |
|--------------------------|---|---|---|---|---|---|
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
|--------------------------|---|---|---|---|---|---|

|          |   |   |   |   |   |   |
|----------|---|---|---|---|---|---|
| Grade, % | - | 0 | 0 | - | 0 | - |
|----------|---|---|---|---|---|---|

|                  |    |    |    |    |    |    |
|------------------|----|----|----|----|----|----|
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
|------------------|----|----|----|----|----|----|

|                   |   |   |   |   |   |   |
|-------------------|---|---|---|---|---|---|
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
|-------------------|---|---|---|---|---|---|

|           |   |   |   |   |   |   |
|-----------|---|---|---|---|---|---|
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------|---|---|---|---|---|---|

| Major/Minor | Major1 | Major2 | Minor2 |
|-------------|--------|--------|--------|
|-------------|--------|--------|--------|

|                      |   |   |   |
|----------------------|---|---|---|
| Conflicting Flow All | 1 | 0 | 0 |
|----------------------|---|---|---|

|         |   |   |   |
|---------|---|---|---|
| Stage 1 | - | - | 1 |
|---------|---|---|---|

|         |   |   |   |
|---------|---|---|---|
| Stage 2 | - | - | 0 |
|---------|---|---|---|

|               |      |   |      |
|---------------|------|---|------|
| Critical Hdwy | 4.12 | - | 6.42 |
|---------------|------|---|------|

|                     |   |   |      |
|---------------------|---|---|------|
| Critical Hdwy Stg 1 | - | - | 5.42 |
|---------------------|---|---|------|

|                     |   |   |      |
|---------------------|---|---|------|
| Critical Hdwy Stg 2 | - | - | 5.42 |
|---------------------|---|---|------|

|                |       |   |       |
|----------------|-------|---|-------|
| Follow-up Hdwy | 2.218 | - | 3.518 |
|----------------|-------|---|-------|

|                    |      |   |      |
|--------------------|------|---|------|
| Pot Cap-1 Maneuver | 1622 | - | 1022 |
|--------------------|------|---|------|

|         |   |   |      |
|---------|---|---|------|
| Stage 1 | - | - | 1022 |
|---------|---|---|------|

|         |   |   |   |
|---------|---|---|---|
| Stage 2 | - | - | - |
|---------|---|---|---|

|                    |   |   |   |
|--------------------|---|---|---|
| Platoon blocked, % | - | - | - |
|--------------------|---|---|---|

|                    |      |   |      |
|--------------------|------|---|------|
| Mov Cap-1 Maneuver | 1622 | - | 1022 |
|--------------------|------|---|------|

|                    |   |   |      |
|--------------------|---|---|------|
| Mov Cap-2 Maneuver | - | - | 1022 |
|--------------------|---|---|------|

|         |   |   |      |
|---------|---|---|------|
| Stage 1 | - | - | 1022 |
|---------|---|---|------|

|         |   |   |   |
|---------|---|---|---|
| Stage 2 | - | - | - |
|---------|---|---|---|

| Approach | EB | WB | SB |
|----------|----|----|----|
|----------|----|----|----|

|                      |   |   |   |
|----------------------|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
|----------------------|---|---|---|

|         |  |  |   |
|---------|--|--|---|
| HCM LOS |  |  | A |
|---------|--|--|---|

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-----|-----|-----|-----|-------|
|-----------------------|-----|-----|-----|-----|-------|

|                  |      |   |   |   |   |
|------------------|------|---|---|---|---|
| Capacity (veh/h) | 1622 | - | - | - | - |
|------------------|------|---|---|---|---|

|                    |   |   |   |   |   |
|--------------------|---|---|---|---|---|
| HCM Lane V/C Ratio | - | - | - | - | - |
|--------------------|---|---|---|---|---|

|                       |   |   |   |   |   |
|-----------------------|---|---|---|---|---|
| HCM Control Delay (s) | 0 | - | - | - | 0 |
|-----------------------|---|---|---|---|---|

|              |   |   |   |   |   |
|--------------|---|---|---|---|---|
| HCM Lane LOS | A | - | - | - | A |
|--------------|---|---|---|---|---|

|                       |   |   |   |   |   |
|-----------------------|---|---|---|---|---|
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |
|-----------------------|---|---|---|---|---|

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|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (vph)       | 204                                                                               | 234                                                                               | 5                                                                                 | 99                                                                                | 321                                                                               | 288                                                                               | 6                                                                                  | 351                                                                                 | 75                                                                                  | 143                                                                                 | 302                                                                                 | 252                                                                                 |
| Future Volume (vph)        | 204                                                                               | 234                                                                               | 5                                                                                 | 99                                                                                | 321                                                                               | 288                                                                               | 6                                                                                  | 351                                                                                 | 75                                                                                  | 143                                                                                 | 302                                                                                 | 252                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                 |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.931                                                                             |                                                                                   |                                                                                    |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1734                                                                              | 0                                                                                 | 1770                                                                               | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.093                                                                             |                                                                                   |                                                                                   | 0.525                                                                             |                                                                                   |                                                                                   | 0.470                                                                              |                                                                                     |                                                                                     | 0.194                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 173                                                                               | 1863                                                                              | 1583                                                                              | 978                                                                               | 1734                                                                              | 0                                                                                 | 875                                                                                | 1863                                                                                | 1583                                                                                | 361                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 89                                                                                |                                                                                   | 44                                                                                |                                                                                   |                                                                                    |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 265                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                    | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                    | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                    | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.73                                                                              | 0.81                                                                              | 0.62                                                                              | 0.80                                                                              | 0.91                                                                              | 0.95                                                                              | 0.75                                                                               | 0.85                                                                                | 0.81                                                                                | 0.79                                                                                | 0.81                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 279                                                                               | 289                                                                               | 8                                                                                 | 124                                                                               | 353                                                                               | 303                                                                               | 8                                                                                  | 413                                                                                 | 93                                                                                  | 181                                                                                 | 373                                                                                 | 265                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 279                                                                               | 289                                                                               | 8                                                                                 | 124                                                                               | 656                                                                               | 0                                                                                 | 8                                                                                  | 413                                                                                 | 93                                                                                  | 181                                                                                 | 373                                                                                 | 265                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                    | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                 |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                  | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                               | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                 | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                 | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                              | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                    | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                    | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                    | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                    | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                  | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                  |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



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|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                  | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   | 8                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 20.0                                                                              | 20.0                                                                              | 3.0                                                                               | 20.0                                                                              |                                                                                   | 3.0                                                                                | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                |
| Minimum Split (s)       | 9.5                                                                               | 34.5                                                                              | 34.5                                                                              | 9.5                                                                               | 25.5                                                                              |                                                                                   | 9.5                                                                                | 23.0                                                                                | 23.0                                                                                | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                |
| Total Split (s)         | 15.0                                                                              | 45.0                                                                              | 45.0                                                                              | 15.0                                                                              | 45.0                                                                              |                                                                                   | 15.0                                                                               | 35.0                                                                                | 35.0                                                                                | 15.0                                                                                | 35.0                                                                                | 35.0                                                                                |
| Total Split (%)         | 13.6%                                                                             | 40.9%                                                                             | 40.9%                                                                             | 13.6%                                                                             | 40.9%                                                                             |                                                                                   | 13.6%                                                                              | 31.8%                                                                               | 31.8%                                                                               | 13.6%                                                                               | 31.8%                                                                               | 31.8%                                                                               |
| Maximum Green (s)       | 11.5                                                                              | 39.5                                                                              | 39.5                                                                              | 11.5                                                                              | 39.5                                                                              |                                                                                   | 11.5                                                                               | 30.0                                                                                | 30.0                                                                                | 11.5                                                                                | 30.0                                                                                | 30.0                                                                                |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                | 1.0                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                | 5.0                                                                                 | 5.0                                                                                 | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                | 2.0                                                                                 | 2.0                                                                                 | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Recall Mode             | None                                                                              | Min                                                                               | Min                                                                               | None                                                                              | Min                                                                               |                                                                                   | None                                                                               | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |
| Walk Time (s)           |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                    | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)     |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                   | 12.0                                                                              |                                                                                   |                                                                                    | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 9.0                                                                                 | 9.0                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |
| Act Effect Green (s)    | 55.7                                                                              | 42.9                                                                              | 42.9                                                                              | 49.6                                                                              | 39.5                                                                              |                                                                                   | 37.2                                                                               | 31.4                                                                                | 31.4                                                                                | 46.5                                                                                | 43.3                                                                                | 43.3                                                                                |
| Actuated g/C Ratio      | 0.51                                                                              | 0.39                                                                              | 0.39                                                                              | 0.45                                                                              | 0.36                                                                              |                                                                                   | 0.34                                                                               | 0.29                                                                                | 0.29                                                                                | 0.42                                                                                | 0.39                                                                                | 0.39                                                                                |
| v/c Ratio               | 1.10                                                                              | 0.40                                                                              | 0.01                                                                              | 0.25                                                                              | 1.01                                                                              |                                                                                   | 0.02                                                                               | 0.78                                                                                | 0.18                                                                                | 0.64                                                                                | 0.51                                                                                | 0.34                                                                                |
| Control Delay           | 113.9                                                                             | 26.8                                                                              | 0.0                                                                               | 15.6                                                                              | 71.3                                                                              |                                                                                   | 19.2                                                                               | 48.1                                                                                | 7.1                                                                                 | 31.5                                                                                | 29.1                                                                                | 4.3                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 113.9                                                                             | 26.8                                                                              | 0.0                                                                               | 15.6                                                                              | 71.3                                                                              |                                                                                   | 19.2                                                                               | 48.1                                                                                | 7.1                                                                                 | 31.5                                                                                | 29.1                                                                                | 4.3                                                                                 |
| LOS                     | F                                                                                 | C                                                                                 | A                                                                                 | B                                                                                 | E                                                                                 |                                                                                   | B                                                                                  | D                                                                                   | A                                                                                   | C                                                                                   | C                                                                                   | A                                                                                   |
| Approach Delay          |                                                                                   | 68.6                                                                              |                                                                                   |                                                                                   | 62.4                                                                              |                                                                                   |                                                                                    | 40.3                                                                                |                                                                                     |                                                                                     | 21.6                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | ~169                                                                              | 145                                                                               | 0                                                                                 | 44                                                                                | ~445                                                                              |                                                                                   | 3                                                                                  | 272                                                                                 | 0                                                                                   | 81                                                                                  | 191                                                                                 | 0                                                                                   |
| Queue Length 95th (ft)  | #235                                                                              | 201                                                                               | 0                                                                                 | 67                                                                                | #692                                                                              |                                                                                   | 11                                                                                 | #369                                                                                | 29                                                                                  | 113                                                                                 | 278                                                                                 | 56                                                                                  |
| Internal Link Dist (ft) |                                                                                   | 127                                                                               |                                                                                   |                                                                                   | 462                                                                               |                                                                                   |                                                                                    | 201                                                                                 |                                                                                     |                                                                                     | 642                                                                                 |                                                                                     |
| Turn Bay Length (ft)    |                                                                                   |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   |                                                                                   | 130                                                                                |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Base Capacity (vph)     | 254                                                                               | 727                                                                               | 672                                                                               | 554                                                                               | 650                                                                               |                                                                                   | 445                                                                                | 531                                                                                 | 519                                                                                 | 299                                                                                 | 733                                                                                 | 784                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 1.10                                                                              | 0.40                                                                              | 0.01                                                                              | 0.22                                                                              | 1.01                                                                              |                                                                                   | 0.02                                                                               | 0.78                                                                                | 0.18                                                                                | 0.61                                                                                | 0.51                                                                                | 0.34                                                                                |

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 48 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 47.1

Intersection LOS: D

Intersection Capacity Utilization 87.6%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.3                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 2                                                                                 | 4                                                                                 | 1                                                                                 | 431                                                                               | 257                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 2                                                                                 | 4                                                                                 | 1                                                                                 | 431                                                                               | 257                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 4                                                                                 | 12                                                                                | 4                                                                                 | 468                                                                               | 276                                                                               | 0                                                                                 |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 752                                                                               | 276                                                                               | 276                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 276                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 476                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 378                                                                               | 763                                                                               | 1287                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 771                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 625                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 377                                                                               | 763                                                                               | 1287                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 377                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 769                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 625                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 11                                                                                | 0.1                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1287                                                                              | -                                                                                 | 377                                                                               | 763                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.003                                                                             | -                                                                                 | 0.011                                                                             | 0.016                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 7.8                                                                               | -                                                                                 | 14.7                                                                              | 9.8                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | B                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 432                                                                               | 0    | 0    | 261                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 432                                                                               | 0    | 0    | 261                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 470                                                                               | 0    | 0    | 284                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 754    | 470    | 0      |
| Stage 1              | 470    | -      | -      |
| Stage 2              | 284    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 377    | 594    | -      |
| Stage 1              | 629    | -      | -      |
| Stage 2              | 764    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 377    | 594    | -      |
| Mov Cap-2 Maneuver   | 377    | -      | -      |
| Stage 1              | 629    | -      | -      |
| Stage 2              | 764    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1092 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |



| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 432                                                                               | 0    | 0    | 261                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 432                                                                               | 0    | 0    | 261                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 470                                                                               | 0    | 0    | 284                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 754    | 470    | 0      |
| Stage 1              | 470    | -      | -      |
| Stage 2              | 284    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 377    | 594    | -      |
| Stage 1              | 629    | -      | -      |
| Stage 2              | 764    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 377    | 594    | -      |
| Mov Cap-2 Maneuver   | 377    | -      | -      |
| Stage 1              | 629    | -      | -      |
| Stage 2              | 764    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1092 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 432                                                                               | 0    | 0    | 261                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 432                                                                               | 0    | 0    | 261                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 470                                                                               | 0    | 0    | 284                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 754    | 470    | 0      |
| Stage 1              | 470    | -      | -      |
| Stage 2              | 284    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 377    | 594    | -      |
| Stage 1              | 629    | -      | -      |
| Stage 2              | 764    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 377    | 594    | -      |
| Mov Cap-2 Maneuver   | 377    | -      | -      |
| Stage 1              | 629    | -      | -      |
| Stage 2              | 764    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1092 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

Intersection

Int Delay, s/veh 0

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 432                                                                               | 0    | 0    | 261                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 432                                                                               | 0    | 0    | 261                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 470                                                                               | 0    | 0    | 284                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 754    | 470    | 0      |
| Stage 1              | 470    | -      | -      |
| Stage 2              | 284    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 377    | 594    | -      |
| Stage 1              | 629    | -      | -      |
| Stage 2              | 764    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 377    | 594    | -      |
| Mov Cap-2 Maneuver   | 377    | -      | -      |
| Stage 1              | 629    | -      | -      |
| Stage 2              | 764    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1092 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

Exsiting 2022 PM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022

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|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 2                                                                                 | 221                                                                               | 10                                                                                | 58                                                                                | 337                                                                               | 383                                                                               | 10                                                                                  | 47                                                                                  | 34                                                                                  | 214                                                                                 | 45                                                                                  | 2                                                                                   |
| Future Volume (vph)        | 2                                                                                 | 221                                                                               | 10                                                                                | 58                                                                                | 337                                                                               | 383                                                                               | 10                                                                                  | 47                                                                                  | 34                                                                                  | 214                                                                                 | 45                                                                                  | 2                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.919                                                                             |                                                                                   |                                                                                     | 0.940                                                                               |                                                                                     |                                                                                     | 0.992                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3253                                                                              | 0                                                                                 | 1770                                                                                | 1751                                                                                | 0                                                                                   | 1770                                                                                | 1848                                                                                | 0                                                                                   |
| Flt Permitted              | 0.206                                                                             |                                                                                   |                                                                                   | 0.398                                                                             |                                                                                   |                                                                                   | 0.710                                                                               |                                                                                     |                                                                                     | 0.629                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 384                                                                               | 3514                                                                              | 0                                                                                 | 741                                                                               | 3253                                                                              | 0                                                                                 | 1323                                                                                | 1751                                                                                | 0                                                                                   | 1172                                                                                | 1848                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 304                                                                               |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 3                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 4                                                                                 | 340                                                                               | 16                                                                                | 68                                                                                | 374                                                                               | 435                                                                               | 16                                                                                  | 60                                                                                  | 40                                                                                  | 255                                                                                 | 68                                                                                  | 4                                                                                   |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 4                                                                                 | 356                                                                               | 0                                                                                 | 68                                                                                | 809                                                                               | 0                                                                                 | 16                                                                                  | 100                                                                                 | 0                                                                                   | 255                                                                                 | 72                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |



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|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                                                              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase                                                          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)                                                     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)                                                       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)                                                         | 16.0                                                                              | 24.0                                                                              |                                                                                   | 16.0                                                                              | 24.0                                                                              |                                                                                   | 16.0                                                                                | 24.0                                                                                |                                                                                     | 24.0                                                                                | 24.0                                                                                |                                                                                     |
| Total Split (%)                                                         | 18.2%                                                                             | 27.3%                                                                             |                                                                                   | 18.2%                                                                             | 27.3%                                                                             |                                                                                   | 18.2%                                                                               | 27.3%                                                                               |                                                                                     | 27.3%                                                                               | 27.3%                                                                               |                                                                                     |
| Maximum Green (s)                                                       | 12.5                                                                              | 18.5                                                                              |                                                                                   | 12.5                                                                              | 18.5                                                                              |                                                                                   | 12.5                                                                                | 18.5                                                                                |                                                                                     | 20.5                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)                                                         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)                                                        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)                                                    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)                                                     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                                                                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?                                                      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode                                                             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)                                                           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)                                                     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effect Green (s)                                                    | 22.8                                                                              | 17.4                                                                              |                                                                                   | 27.6                                                                              | 24.0                                                                              |                                                                                   | 44.0                                                                                | 37.6                                                                                |                                                                                     | 53.4                                                                                | 49.6                                                                                |                                                                                     |
| Actuated g/C Ratio                                                      | 0.26                                                                              | 0.20                                                                              |                                                                                   | 0.31                                                                              | 0.27                                                                              |                                                                                   | 0.50                                                                                | 0.43                                                                                |                                                                                     | 0.61                                                                                | 0.56                                                                                |                                                                                     |
| v/c Ratio                                                               | 0.02                                                                              | 0.51                                                                              |                                                                                   | 0.22                                                                              | 0.73                                                                              |                                                                                   | 0.02                                                                                | 0.13                                                                                |                                                                                     | 0.33                                                                                | 0.07                                                                                |                                                                                     |
| Control Delay                                                           | 18.0                                                                              | 33.5                                                                              |                                                                                   | 21.0                                                                              | 21.6                                                                              |                                                                                   | 10.1                                                                                | 14.2                                                                                |                                                                                     | 10.6                                                                                | 11.8                                                                                |                                                                                     |
| Queue Delay                                                             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay                                                             | 18.0                                                                              | 33.5                                                                              |                                                                                   | 21.0                                                                              | 21.6                                                                              |                                                                                   | 10.1                                                                                | 14.2                                                                                |                                                                                     | 10.6                                                                                | 11.8                                                                                |                                                                                     |
| LOS                                                                     | B                                                                                 | C                                                                                 |                                                                                   | C                                                                                 | C                                                                                 |                                                                                   | B                                                                                   | B                                                                                   |                                                                                     | B                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay                                                          |                                                                                   | 33.3                                                                              |                                                                                   |                                                                                   | 21.5                                                                              |                                                                                   |                                                                                     | 13.6                                                                                |                                                                                     |                                                                                     | 10.8                                                                                |                                                                                     |
| Approach LOS                                                            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)                                                  | 2                                                                                 | 94                                                                                |                                                                                   | 27                                                                                | 128                                                                               |                                                                                   | 3                                                                                   | 21                                                                                  |                                                                                     | 60                                                                                  | 15                                                                                  |                                                                                     |
| Queue Length 95th (ft)                                                  | 4                                                                                 | 85                                                                                |                                                                                   | 45                                                                                | 193                                                                               |                                                                                   | 10                                                                                  | 55                                                                                  |                                                                                     | 116                                                                                 | 37                                                                                  |                                                                                     |
| Internal Link Dist (ft)                                                 |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)                                                    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                 |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)                                                     | 317                                                                               | 776                                                                               |                                                                                   | 378                                                                               | 1124                                                                              |                                                                                   | 834                                                                                 | 767                                                                                 |                                                                                     | 850                                                                                 | 1043                                                                                |                                                                                     |
| Starvation Cap Reductn                                                  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn                                                     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio                                                       | 0.01                                                                              | 0.46                                                                              |                                                                                   | 0.18                                                                              | 0.72                                                                              |                                                                                   | 0.02                                                                                | 0.13                                                                                |                                                                                     | 0.30                                                                                | 0.07                                                                                |                                                                                     |
| <b>Intersection Summary</b>                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type:                                                              | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Cycle Length: 88                                                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length: 88                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Offset: 48 (55%), Referenced to phase 4:NETL and 8:SWTL, Start of Green |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Natural Cycle: 80                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type: Actuated-Coordinated                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Maximum v/c Ratio: 0.73                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Signal Delay: 21.4                                         | Intersection LOS: C                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization 56.0%                                 | ICU Level of Service B                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min) 15                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 16 s                                                                                 | 24 s                                                                                 | 24 s                                                                                 | 24 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 16 s                                                                                 | 24 s                                                                                 | 16 s                                                                                 | 24 s                                                                                       |

| Intersection             |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |        |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 | Minor1 |                                                                                   |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -      |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |        | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |        | 0                                                                                 |                                                                                   |       |
| HCM LOS                  | A                                                                                 |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -      | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -      | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -      | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  | A                                                                                 |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0                                                                                 |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |       |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 0      | 0      | 1      | 0 | 2     | 1     |
| Stage 1              | -      | -      | -      | - | 1     | -     |
| Stage 2              | -      | -      | -      | - | 1     | -     |
| Critical Hdwy        | -      | -      | 4.12   | - | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  | -     |
| Follow-up Hdwy       | -      | -      | 2.218  | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 1622   | - | 1021  | 1084  |
| Stage 1              | -      | -      | -      | - | 1022  | -     |
| Stage 2              | -      | -      | -      | - | 1022  | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     | -     |
| Mov Cap-1 Maneuver   | -      | -      | 1622   | - | 1021  | 1084  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 1021  | -     |
| Stage 1              | -      | -      | -      | - | 1022  | -     |
| Stage 2              | -      | -      | -      | - | 1022  | -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1622 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 0

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|----------|-----|-----|-----|-----|-----|-----|
|----------|-----|-----|-----|-----|-----|-----|

Lane Configurations

|                    |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------|---|---|---|---|---|---|

|                   |   |   |   |   |   |   |
|-------------------|---|---|---|---|---|---|
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------|---|---|---|---|---|---|

|                        |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------|---|---|---|---|---|---|

|              |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|
| Sign Control | Free | Free | Free | Free | Stop | Stop |
|--------------|------|------|------|------|------|------|

|                |   |      |   |      |   |      |
|----------------|---|------|---|------|---|------|
| RT Channelized | - | None | - | None | - | None |
|----------------|---|------|---|------|---|------|

|                |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|
| Storage Length | - | - | - | - | 0 | - |
|----------------|---|---|---|---|---|---|

|                          |   |   |   |   |   |   |
|--------------------------|---|---|---|---|---|---|
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
|--------------------------|---|---|---|---|---|---|

|          |   |   |   |   |   |   |
|----------|---|---|---|---|---|---|
| Grade, % | - | 0 | 0 | - | 0 | - |
|----------|---|---|---|---|---|---|

|                  |    |    |    |    |    |    |
|------------------|----|----|----|----|----|----|
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
|------------------|----|----|----|----|----|----|

|                   |   |   |   |   |   |   |
|-------------------|---|---|---|---|---|---|
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
|-------------------|---|---|---|---|---|---|

|           |   |   |   |   |   |   |
|-----------|---|---|---|---|---|---|
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------|---|---|---|---|---|---|

| Major/Minor | Major1 | Major2 | Minor2 |
|-------------|--------|--------|--------|
|-------------|--------|--------|--------|

|                      |   |   |   |
|----------------------|---|---|---|
| Conflicting Flow All | 1 | 0 | 0 |
|----------------------|---|---|---|

|         |   |   |   |
|---------|---|---|---|
| Stage 1 | - | - | 1 |
|---------|---|---|---|

|         |   |   |   |
|---------|---|---|---|
| Stage 2 | - | - | 0 |
|---------|---|---|---|

|               |      |   |      |
|---------------|------|---|------|
| Critical Hdwy | 4.12 | - | 6.42 |
|---------------|------|---|------|

|                     |   |   |      |
|---------------------|---|---|------|
| Critical Hdwy Stg 1 | - | - | 5.42 |
|---------------------|---|---|------|

|                     |   |   |      |
|---------------------|---|---|------|
| Critical Hdwy Stg 2 | - | - | 5.42 |
|---------------------|---|---|------|

|                |       |   |       |
|----------------|-------|---|-------|
| Follow-up Hdwy | 2.218 | - | 3.518 |
|----------------|-------|---|-------|

|                    |      |   |      |
|--------------------|------|---|------|
| Pot Cap-1 Maneuver | 1622 | - | 1022 |
|--------------------|------|---|------|

|         |   |   |      |
|---------|---|---|------|
| Stage 1 | - | - | 1022 |
|---------|---|---|------|

|         |   |   |   |
|---------|---|---|---|
| Stage 2 | - | - | - |
|---------|---|---|---|

|                    |   |   |   |
|--------------------|---|---|---|
| Platoon blocked, % | - | - | - |
|--------------------|---|---|---|

|                    |      |   |      |
|--------------------|------|---|------|
| Mov Cap-1 Maneuver | 1622 | - | 1022 |
|--------------------|------|---|------|

|                    |   |   |      |
|--------------------|---|---|------|
| Mov Cap-2 Maneuver | - | - | 1022 |
|--------------------|---|---|------|

|         |   |   |      |
|---------|---|---|------|
| Stage 1 | - | - | 1022 |
|---------|---|---|------|

|         |   |   |   |
|---------|---|---|---|
| Stage 2 | - | - | - |
|---------|---|---|---|

| Approach | EB | WB | SB |
|----------|----|----|----|
|----------|----|----|----|

|                      |   |   |   |
|----------------------|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
|----------------------|---|---|---|

|         |  |  |   |
|---------|--|--|---|
| HCM LOS |  |  | A |
|---------|--|--|---|

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-----|-----|-----|-----|-------|
|-----------------------|-----|-----|-----|-----|-------|

|                  |      |   |   |   |   |
|------------------|------|---|---|---|---|
| Capacity (veh/h) | 1622 | - | - | - | - |
|------------------|------|---|---|---|---|

|                    |   |   |   |   |   |
|--------------------|---|---|---|---|---|
| HCM Lane V/C Ratio | - | - | - | - | - |
|--------------------|---|---|---|---|---|

|                       |   |   |   |   |   |
|-----------------------|---|---|---|---|---|
| HCM Control Delay (s) | 0 | - | - | - | 0 |
|-----------------------|---|---|---|---|---|

|              |   |   |   |   |   |
|--------------|---|---|---|---|---|
| HCM Lane LOS | A | - | - | - | A |
|--------------|---|---|---|---|---|

|                       |   |   |   |   |   |
|-----------------------|---|---|---|---|---|
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |
|-----------------------|---|---|---|---|---|

# **APPENDIX H**

## **Phase 1 2023 - No Build Synchro Reports**

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 160                                                                               | 410                                                                               | 59                                                                                | 92                                                                                | 180                                                                               | 124                                                                               | 11                                                                                  | 205                                                                                 | 153                                                                                 | 287                                                                                 | 469                                                                                 | 248                                                                                 |
| Future Volume (vph)        | 160                                                                               | 410                                                                               | 59                                                                                | 92                                                                                | 180                                                                               | 124                                                                               | 11                                                                                  | 205                                                                                 | 153                                                                                 | 287                                                                                 | 469                                                                                 | 248                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.941                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1753                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.142                                                                             |                                                                                   |                                                                                   | 0.156                                                                             |                                                                                   |                                                                                   | 0.300                                                                               |                                                                                     |                                                                                     | 0.466                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 265                                                                               | 1863                                                                              | 1583                                                                              | 291                                                                               | 1753                                                                              | 0                                                                                 | 559                                                                                 | 1863                                                                                | 1583                                                                                | 868                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 124                                                                               |                                                                                   | 27                                                                                |                                                                                   |                                                                                     |                                                                                     | 164                                                                                 |                                                                                     |                                                                                     | 282                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                                | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 190                                                                               | 500                                                                               | 75                                                                                | 151                                                                               | 261                                                                               | 170                                                                               | 24                                                                                  | 259                                                                                 | 259                                                                                 | 330                                                                                 | 601                                                                                 | 282                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 190                                                                               | 500                                                                               | 75                                                                                | 151                                                                               | 431                                                                               | 0                                                                                 | 24                                                                                  | 259                                                                                 | 259                                                                                 | 330                                                                                 | 601                                                                                 | 282                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



No Build 2023 AM  
1: Universe Blvd & Paseo Del Norte Blvd

Lanes, Volumes, Timings  
04/14/2022

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   | 8                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 20.0                                                                              | 20.0                                                                              | 3.0                                                                               | 20.0                                                                              |                                                                                   | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                |
| Minimum Split (s)       | 9.5                                                                               | 34.5                                                                              | 34.5                                                                              | 9.5                                                                               | 25.5                                                                              |                                                                                   | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                |
| Total Split (s)         | 17.0                                                                              | 32.0                                                                              | 32.0                                                                              | 13.0                                                                              | 29.0                                                                              |                                                                                   | 13.0                                                                                | 45.0                                                                                | 45.0                                                                                | 19.0                                                                                | 51.0                                                                                | 51.0                                                                                |
| Total Split (%)         | 15.5%                                                                             | 29.1%                                                                             | 29.1%                                                                             | 11.8%                                                                             | 26.4%                                                                             |                                                                                   | 11.8%                                                                               | 40.9%                                                                               | 40.9%                                                                               | 17.3%                                                                               | 46.4%                                                                               | 46.4%                                                                               |
| Maximum Green (s)       | 13.5                                                                              | 26.5                                                                              | 26.5                                                                              | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 40.0                                                                                | 40.0                                                                                | 15.5                                                                                | 46.0                                                                                | 46.0                                                                                |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              |                                                                                   | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |
| Walk Time (s)           |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)     |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                   | 12.0                                                                              |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 9.0                                                                                 | 9.0                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |
| Act Effect Green (s)    | 41.4                                                                              | 28.2                                                                              | 28.2                                                                              | 36.4                                                                              | 25.6                                                                              |                                                                                   | 47.8                                                                                | 41.6                                                                                | 41.6                                                                                | 60.5                                                                                | 53.8                                                                                | 53.8                                                                                |
| Actuated g/C Ratio      | 0.38                                                                              | 0.26                                                                              | 0.26                                                                              | 0.33                                                                              | 0.23                                                                              |                                                                                   | 0.43                                                                                | 0.38                                                                                | 0.38                                                                                | 0.55                                                                                | 0.49                                                                                | 0.49                                                                                |
| v/c Ratio               | 0.75                                                                              | 1.05                                                                              | 0.15                                                                              | 0.71                                                                              | 1.01                                                                              |                                                                                   | 0.08                                                                                | 0.37                                                                                | 0.37                                                                                | 0.56                                                                                | 0.66                                                                                | 0.31                                                                                |
| Control Delay           | 42.2                                                                              | 95.0                                                                              | 1.9                                                                               | 42.3                                                                              | 85.8                                                                              |                                                                                   | 12.8                                                                                | 27.1                                                                                | 11.1                                                                                | 17.8                                                                                | 26.5                                                                                | 3.0                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 42.2                                                                              | 95.0                                                                              | 1.9                                                                               | 42.3                                                                              | 85.8                                                                              |                                                                                   | 12.8                                                                                | 27.1                                                                                | 11.1                                                                                | 17.8                                                                                | 26.5                                                                                | 3.0                                                                                 |
| LOS                     | D                                                                                 | F                                                                                 | A                                                                                 | D                                                                                 | F                                                                                 |                                                                                   | B                                                                                   | C                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   | A                                                                                   |
| Approach Delay          |                                                                                   | 72.7                                                                              |                                                                                   |                                                                                   | 74.5                                                                              |                                                                                   |                                                                                     | 18.8                                                                                |                                                                                     |                                                                                     | 18.7                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 91                                                                                | ~393                                                                              | 0                                                                                 | 71                                                                                | ~312                                                                              |                                                                                   | 7                                                                                   | 133                                                                                 | 45                                                                                  | 123                                                                                 | 327                                                                                 | 0                                                                                   |
| Queue Length 95th (ft)  | 136                                                                               | #514                                                                              | 0                                                                                 | 77                                                                                | #330                                                                              |                                                                                   | 10                                                                                  | 175                                                                                 | 37                                                                                  | 175                                                                                 | 375                                                                                 | 42                                                                                  |
| Internal Link Dist (ft) |                                                                                   | 127                                                                               |                                                                                   |                                                                                   | 462                                                                               |                                                                                   |                                                                                     | 201                                                                                 |                                                                                     |                                                                                     | 642                                                                                 |                                                                                     |
| Turn Bay Length (ft)    |                                                                                   |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   |                                                                                   | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Base Capacity (vph)     | 287                                                                               | 477                                                                               | 498                                                                               | 226                                                                               | 428                                                                               |                                                                                   | 371                                                                                 | 704                                                                                 | 700                                                                                 | 604                                                                                 | 911                                                                                 | 918                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.66                                                                              | 1.05                                                                              | 0.15                                                                              | 0.67                                                                              | 1.01                                                                              |                                                                                   | 0.06                                                                                | 0.37                                                                                | 0.37                                                                                | 0.55                                                                                | 0.66                                                                                | 0.31                                                                                |

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 42.5

Intersection LOS: D

Intersection Capacity Utilization 71.3%

ICU Level of Service C

Analysis Period (min) 15

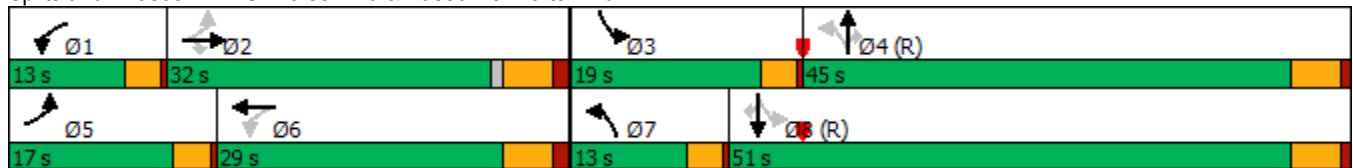
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 12                                                                                | 26                                                                                | 55                                                                                | 166                                                                               | 582                                                                               | 129                                                                               |
| Future Vol, veh/h        | 12                                                                                | 26                                                                                | 55                                                                                | 166                                                                               | 582                                                                               | 129                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 31                                                                                | 58                                                                                | 112                                                                               | 180                                                                               | 633                                                                               | 274                                                                               |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1037                                                                              | 633                                                                               | 907                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 633                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 404                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 256                                                                               | 480                                                                               | 750                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 529                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 674                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 218                                                                               | 480                                                                               | 750                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 218                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 450                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 674                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 17.2                                                                              | 4.1                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 750                                                                               | -                                                                                 | 218                                                                               | 480                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.15                                                                              | -                                                                                 | 0.141                                                                             | 0.12                                                                              | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 10.6                                                                              | -                                                                                 | 24.2                                                                              | 13.5                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | B                                                                                 | -                                                                                 | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.5                                                                               | -                                                                                 | 0.5                                                                               | 0.4                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 221                                                                               | 0    | 0    | 607                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 221                                                                               | 0    | 0    | 607                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 240                                                                               | 0    | 0    | 660                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 900    | 240    | 0      |
| Stage 1              | 240    | -      | -      |
| Stage 2              | 660    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | 4.12   |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | 2.218  |
| Pot Cap-1 Maneuver   | 309    | 799    | 1327   |
| Stage 1              | 800    | -      | -      |
| Stage 2              | 514    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 309    | 799    | 1327   |
| Mov Cap-2 Maneuver   | 309    | -      | -      |
| Stage 1              | 800    | -      | -      |
| Stage 2              | 514    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT |
|-----------------------|-----|----------|------|-----|
| Capacity (veh/h)      | -   | -        | 1327 | -   |
| HCM Lane V/C Ratio    | -   | -        | -    | -   |
| HCM Control Delay (s) | -   | 0        | 0    | -   |
| HCM Lane LOS          | -   | A        | A    | -   |
| HCM 95th %tile Q(veh) | -   | -        | 0    | -   |



| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 221                                                                               | 0    | 0    | 607                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 221                                                                               | 0    | 0    | 607                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 240                                                                               | 0    | 0    | 660                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 900    | 240    | 0      |
| Stage 1              | 240    | -      | -      |
| Stage 2              | 660    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 309    | 799    | -      |
| Stage 1              | 800    | -      | -      |
| Stage 2              | 514    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 309    | 799    | -      |
| Mov Cap-2 Maneuver   | 309    | -      | -      |
| Stage 1              | 800    | -      | -      |
| Stage 2              | 514    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1327 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 221                                                                               | 0    | 0    | 607                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 221                                                                               | 0    | 0    | 607                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 240                                                                               | 0    | 0    | 660                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 900    | 240    | 0      |
| Stage 1              | 240    | -      | -      |
| Stage 2              | 660    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 309    | 799    | -      |
| Stage 1              | 800    | -      | -      |
| Stage 2              | 514    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 309    | 799    | -      |
| Mov Cap-2 Maneuver   | 309    | -      | -      |
| Stage 1              | 800    | -      | -      |
| Stage 2              | 514    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1327 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 221                                                                               | 0    | 0    | 607                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 221                                                                               | 0    | 0    | 607                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 240                                                                               | 0    | 0    | 660                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 900    | 240    | 0      |
| Stage 1              | 240    | -      | -      |
| Stage 2              | 660    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | 4.12   |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | 2.218  |
| Pot Cap-1 Maneuver   | 309    | 799    | 1327   |
| Stage 1              | 800    | -      | -      |
| Stage 2              | 514    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 309    | 799    | 1327   |
| Mov Cap-2 Maneuver   | 309    | -      | -      |
| Stage 1              | 800    | -      | -      |
| Stage 2              | 514    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT |
|-----------------------|-----|----------|------|-----|
| Capacity (veh/h)      | -   | -        | 1327 | -   |
| HCM Lane V/C Ratio    | -   | -        | -    | -   |
| HCM Control Delay (s) | -   | 0        | 0    | -   |
| HCM Lane LOS          | -   | A        | A    | -   |
| HCM 95th %tile Q(veh) | -   | -        | 0    | -   |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 3                                                                                 | 459                                                                               | 15                                                                                | 11                                                                                | 363                                                                               | 177                                                                               | 55                                                                                  | 42                                                                                  | 49                                                                                  | 564                                                                                 | 28                                                                                  | 16                                                                                  |
| Future Volume (vph)        | 3                                                                                 | 459                                                                               | 15                                                                                | 11                                                                                | 363                                                                               | 177                                                                               | 55                                                                                  | 42                                                                                  | 49                                                                                  | 564                                                                                 | 28                                                                                  | 16                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.959                                                                             |                                                                                   |                                                                                     | 0.920                                                                               |                                                                                     |                                                                                     | 0.924                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3394                                                                              | 0                                                                                 | 1770                                                                                | 1714                                                                                | 0                                                                                   | 1770                                                                                | 1721                                                                                | 0                                                                                   |
| Flt Permitted              | 0.183                                                                             |                                                                                   |                                                                                   | 0.241                                                                             |                                                                                   |                                                                                   | 0.708                                                                               |                                                                                     |                                                                                     | 0.553                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 341                                                                               | 3514                                                                              | 0                                                                                 | 449                                                                               | 3394                                                                              | 0                                                                                 | 1319                                                                                | 1714                                                                                | 0                                                                                   | 1030                                                                                | 1721                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 57                                                                                |                                                                                   |                                                                                     | 50                                                                                  |                                                                                     |                                                                                     | 38                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 6                                                                                 | 588                                                                               | 30                                                                                | 22                                                                                | 542                                                                               | 206                                                                               | 112                                                                                 | 59                                                                                  | 67                                                                                  | 648                                                                                 | 37                                                                                  | 38                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 6                                                                                 | 618                                                                               | 0                                                                                 | 22                                                                                | 748                                                                               | 0                                                                                 | 112                                                                                 | 126                                                                                 | 0                                                                                   | 648                                                                                 | 75                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |



No Build 2023 AM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)         | 16.0                                                                              | 36.0                                                                              |                                                                                   | 16.0                                                                              | 34.0                                                                              |                                                                                   | 16.0                                                                                | 24.0                                                                                |                                                                                     | 24.0                                                                                | 24.0                                                                                |                                                                                     |
| Total Split (%)         | 16.0%                                                                             | 36.0%                                                                             |                                                                                   | 16.0%                                                                             | 34.0%                                                                             |                                                                                   | 16.0%                                                                               | 24.0%                                                                               |                                                                                     | 24.0%                                                                               | 24.0%                                                                               |                                                                                     |
| Maximum Green (s)       | 12.5                                                                              | 30.5                                                                              |                                                                                   | 12.5                                                                              | 28.5                                                                              |                                                                                   | 12.5                                                                                | 18.5                                                                                |                                                                                     | 20.5                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effct Green (s)     | 29.9                                                                              | 26.1                                                                              |                                                                                   | 31.2                                                                              | 28.0                                                                              |                                                                                   | 30.7                                                                                | 21.8                                                                                |                                                                                     | 61.3                                                                                | 48.9                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.30                                                                              | 0.26                                                                              |                                                                                   | 0.31                                                                              | 0.28                                                                              |                                                                                   | 0.31                                                                                | 0.22                                                                                |                                                                                     | 0.61                                                                                | 0.49                                                                                |                                                                                     |
| v/c Ratio               | 0.04                                                                              | 0.67                                                                              |                                                                                   | 0.11                                                                              | 0.75                                                                              |                                                                                   | 0.26                                                                                | 0.31                                                                                |                                                                                     | 0.73                                                                                | 0.09                                                                                |                                                                                     |
| Control Delay           | 19.0                                                                              | 36.4                                                                              |                                                                                   | 20.9                                                                              | 35.0                                                                              |                                                                                   | 15.8                                                                                | 23.2                                                                                |                                                                                     | 20.8                                                                                | 11.0                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 19.0                                                                              | 36.4                                                                              |                                                                                   | 20.9                                                                              | 35.0                                                                              |                                                                                   | 15.8                                                                                | 23.2                                                                                |                                                                                     | 20.8                                                                                | 11.0                                                                                |                                                                                     |
| LOS                     | B                                                                                 | D                                                                                 |                                                                                   | C                                                                                 | C                                                                                 |                                                                                   | B                                                                                   | C                                                                                   |                                                                                     | C                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 36.2                                                                              |                                                                                   |                                                                                   | 34.6                                                                              |                                                                                   |                                                                                     | 19.8                                                                                |                                                                                     |                                                                                     | 19.8                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 3                                                                                 | 181                                                                               |                                                                                   | 10                                                                                | 214                                                                               |                                                                                   | 25                                                                                  | 39                                                                                  |                                                                                     | 215                                                                                 | 11                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 5                                                                                 | 186                                                                               |                                                                                   | 12                                                                                | 172                                                                               |                                                                                   | 35                                                                                  | 67                                                                                  |                                                                                     | #522                                                                                | 36                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                 |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 286                                                                               | 1086                                                                              |                                                                                   | 307                                                                               | 1123                                                                              |                                                                                   | 535                                                                                 | 412                                                                                 |                                                                                     | 883                                                                                 | 861                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.02                                                                              | 0.57                                                                              |                                                                                   | 0.07                                                                              | 0.67                                                                              |                                                                                   | 0.21                                                                                | 0.31                                                                                |                                                                                     | 0.73                                                                                | 0.09                                                                                |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 60 (60%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 29.0

Intersection LOS: C

Intersection Capacity Utilization 62.8%

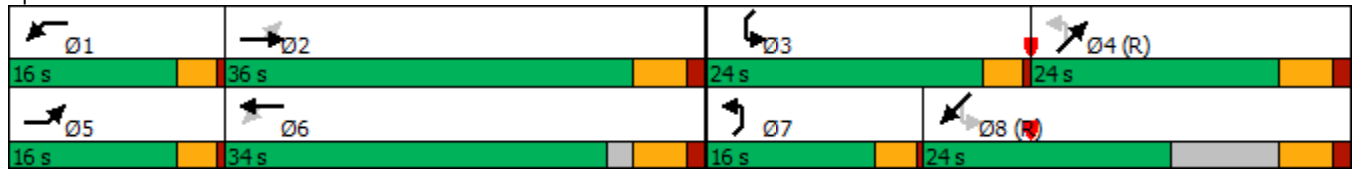
ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  | A                                                                                 |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |        |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 | Minor1 |                                                                                   |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -      |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |        | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |        | 0                                                                                 |                                                                                   |       |
| HCM LOS                  | A                                                                                 |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -      | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -      | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -      | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |



Intersection

Int Delay, s/veh 0

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | 1622   | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1622   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1622 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 0

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|----------|-----|-----|-----|-----|-----|-----|
|----------|-----|-----|-----|-----|-----|-----|

Lane Configurations

|                    |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------|---|---|---|---|---|---|

|                   |   |   |   |   |   |   |
|-------------------|---|---|---|---|---|---|
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------|---|---|---|---|---|---|

|                        |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------|---|---|---|---|---|---|

|              |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|
| Sign Control | Free | Free | Free | Free | Stop | Stop |
|--------------|------|------|------|------|------|------|

|                |   |      |   |      |   |      |
|----------------|---|------|---|------|---|------|
| RT Channelized | - | None | - | None | - | None |
|----------------|---|------|---|------|---|------|

|                |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|
| Storage Length | - | - | - | - | 0 | - |
|----------------|---|---|---|---|---|---|

|                          |   |   |   |   |   |   |
|--------------------------|---|---|---|---|---|---|
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
|--------------------------|---|---|---|---|---|---|

|          |   |   |   |   |   |   |
|----------|---|---|---|---|---|---|
| Grade, % | - | 0 | 0 | - | 0 | - |
|----------|---|---|---|---|---|---|

|                  |    |    |    |    |    |    |
|------------------|----|----|----|----|----|----|
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
|------------------|----|----|----|----|----|----|

|                   |   |   |   |   |   |   |
|-------------------|---|---|---|---|---|---|
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
|-------------------|---|---|---|---|---|---|

|           |   |   |   |   |   |   |
|-----------|---|---|---|---|---|---|
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------|---|---|---|---|---|---|

| Major/Minor | Major1 | Major2 | Minor2 |
|-------------|--------|--------|--------|
|-------------|--------|--------|--------|

|                      |   |   |   |
|----------------------|---|---|---|
| Conflicting Flow All | 1 | 0 | 0 |
|----------------------|---|---|---|

|         |   |   |   |
|---------|---|---|---|
| Stage 1 | - | - | 1 |
|---------|---|---|---|

|         |   |   |   |
|---------|---|---|---|
| Stage 2 | - | - | 0 |
|---------|---|---|---|

|               |      |   |      |
|---------------|------|---|------|
| Critical Hdwy | 4.12 | - | 6.42 |
|---------------|------|---|------|

|                     |   |   |      |
|---------------------|---|---|------|
| Critical Hdwy Stg 1 | - | - | 5.42 |
|---------------------|---|---|------|

|                     |   |   |      |
|---------------------|---|---|------|
| Critical Hdwy Stg 2 | - | - | 5.42 |
|---------------------|---|---|------|

|                |       |   |       |
|----------------|-------|---|-------|
| Follow-up Hdwy | 2.218 | - | 3.518 |
|----------------|-------|---|-------|

|                    |      |   |      |
|--------------------|------|---|------|
| Pot Cap-1 Maneuver | 1622 | - | 1022 |
|--------------------|------|---|------|

|         |   |   |      |
|---------|---|---|------|
| Stage 1 | - | - | 1022 |
|---------|---|---|------|

|         |   |   |   |
|---------|---|---|---|
| Stage 2 | - | - | - |
|---------|---|---|---|

|                    |   |   |   |
|--------------------|---|---|---|
| Platoon blocked, % | - | - | - |
|--------------------|---|---|---|

|                    |      |   |      |
|--------------------|------|---|------|
| Mov Cap-1 Maneuver | 1622 | - | 1022 |
|--------------------|------|---|------|

|                    |   |   |      |
|--------------------|---|---|------|
| Mov Cap-2 Maneuver | - | - | 1022 |
|--------------------|---|---|------|

|         |   |   |      |
|---------|---|---|------|
| Stage 1 | - | - | 1022 |
|---------|---|---|------|

|         |   |   |   |
|---------|---|---|---|
| Stage 2 | - | - | - |
|---------|---|---|---|

| Approach | EB | WB | SB |
|----------|----|----|----|
|----------|----|----|----|

|                      |   |   |   |
|----------------------|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
|----------------------|---|---|---|

|         |  |  |   |
|---------|--|--|---|
| HCM LOS |  |  | A |
|---------|--|--|---|

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-----|-----|-----|-----|-------|
|-----------------------|-----|-----|-----|-----|-------|

|                  |      |   |   |   |   |
|------------------|------|---|---|---|---|
| Capacity (veh/h) | 1622 | - | - | - | - |
|------------------|------|---|---|---|---|

|                    |   |   |   |   |   |
|--------------------|---|---|---|---|---|
| HCM Lane V/C Ratio | - | - | - | - | - |
|--------------------|---|---|---|---|---|

|                       |   |   |   |   |   |
|-----------------------|---|---|---|---|---|
| HCM Control Delay (s) | 0 | - | - | - | 0 |
|-----------------------|---|---|---|---|---|

|              |   |   |   |   |   |
|--------------|---|---|---|---|---|
| HCM Lane LOS | A | - | - | - | A |
|--------------|---|---|---|---|---|

|                       |   |   |   |   |   |
|-----------------------|---|---|---|---|---|
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |
|-----------------------|---|---|---|---|---|

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (vph)       | 216                                                                               | 286                                                                               | 7                                                                                 | 163                                                                               | 402                                                                               | 297                                                                               | 8                                                                                   | 363                                                                                 | 114                                                                                 | 148                                                                                 | 313                                                                                 | 268                                                                                 |
| Future Volume (vph)        | 216                                                                               | 286                                                                               | 7                                                                                 | 163                                                                               | 402                                                                               | 297                                                                               | 8                                                                                   | 363                                                                                 | 114                                                                                 | 148                                                                                 | 313                                                                                 | 268                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.938                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1747                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.098                                                                             |                                                                                   |                                                                                   | 0.411                                                                             |                                                                                   |                                                                                   | 0.453                                                                               |                                                                                     |                                                                                     | 0.173                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 183                                                                               | 1863                                                                              | 1583                                                                              | 766                                                                               | 1747                                                                              | 0                                                                                 | 844                                                                                 | 1863                                                                                | 1583                                                                                | 322                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 89                                                                                |                                                                                   | 36                                                                                |                                                                                   |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 282                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.73                                                                              | 0.81                                                                              | 0.62                                                                              | 0.80                                                                              | 0.91                                                                              | 0.95                                                                              | 0.75                                                                                | 0.85                                                                                | 0.81                                                                                | 0.79                                                                                | 0.81                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 296                                                                               | 353                                                                               | 11                                                                                | 204                                                                               | 442                                                                               | 313                                                                               | 11                                                                                  | 427                                                                                 | 141                                                                                 | 187                                                                                 | 386                                                                                 | 282                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 296                                                                               | 353                                                                               | 11                                                                                | 204                                                                               | 755                                                                               | 0                                                                                 | 11                                                                                  | 427                                                                                 | 141                                                                                 | 187                                                                                 | 386                                                                                 | 282                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 15.0  | 45.0  | 45.0  | 15.0  | 45.0  |     | 15.0  | 35.0  | 35.0  | 15.0  | 35.0  | 35.0  |
| Total Split (%)         | 13.6% | 40.9% | 40.9% | 13.6% | 40.9% |     | 13.6% | 31.8% | 31.8% | 13.6% | 31.8% | 31.8% |
| Maximum Green (s)       | 11.5  | 39.5  | 39.5  | 11.5  | 39.5  |     | 11.5  | 30.0  | 30.0  | 11.5  | 30.0  | 30.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | Min   | Min   | None  | Min   |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 54.3  | 40.9  | 40.9  | 51.6  | 39.5  |     | 37.1  | 31.2  | 31.2  | 46.5  | 43.3  | 43.3  |
| Actuated g/C Ratio      | 0.49  | 0.37  | 0.37  | 0.47  | 0.36  |     | 0.34  | 0.28  | 0.28  | 0.42  | 0.39  | 0.39  |
| v/c Ratio               | 1.16  | 0.51  | 0.02  | 0.45  | 1.16  |     | 0.03  | 0.81  | 0.27  | 0.69  | 0.53  | 0.36  |
| Control Delay           | 133.2 | 30.4  | 0.0   | 18.3  | 121.0 |     | 19.2  | 50.6  | 13.4  | 34.4  | 29.5  | 4.3   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 133.2 | 30.4  | 0.0   | 18.3  | 121.0 |     | 19.2  | 50.6  | 13.4  | 34.4  | 29.5  | 4.3   |
| LOS                     | F     | C     | A     | B     | F     |     | B     | D     | B     | C     | C     | A     |
| Approach Delay          |       | 76.0  |       |       | 99.2  |     |       | 41.0  |       |       | 22.3  |       |
| Approach LOS            |       | E     |       |       | F     |     |       | D     |       |       | C     |       |
| Queue Length 50th (ft)  | ~196  | 193   | 0     | 76    | ~618  |     | 4     | 285   | 25    | 84    | 199   | 0     |
| Queue Length 95th (ft)  | #254  | 250   | 0     | 105   | #855  |     | 13    | #404  | 61    | 116   | 290   | 58    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 256   | 693   | 645   | 474   | 650   |     | 434   | 527   | 516   | 287   | 732   | 793   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 1.16  | 0.51  | 0.02  | 0.43  | 1.16  |     | 0.03  | 0.81  | 0.27  | 0.65  | 0.53  | 0.36  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 48 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 61.6

Intersection LOS: E

Intersection Capacity Utilization 94.0%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.



Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 3                                                                                 | 5                                                                                 | 2                                                                                 | 468                                                                               | 279                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 3                                                                                 | 5                                                                                 | 2                                                                                 | 468                                                                               | 279                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 6                                                                                 | 15                                                                                | 8                                                                                 | 509                                                                               | 300                                                                               | 0                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 825                                                                               | 300                                                                               | 300                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 300                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 525                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 342                                                                               | 740                                                                               | 1261                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 752                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 593                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 340                                                                               | 740                                                                               | 1261                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 340                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 747                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 593                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 11.6                                                                              | 0.1                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1261                                                                              | -                                                                                 | 340                                                                               | 740                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.006                                                                             | -                                                                                 | 0.018                                                                             | 0.02                                                                              | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 7.9                                                                               | -                                                                                 | 15.8                                                                              | 10                                                                                | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | 0.1                                                                               | 0.1                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 469                                                                               | 0    | 0    | 283                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 469                                                                               | 0    | 0    | 283                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 510                                                                               | 0    | 0    | 308                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 818    | 510    | 0      |
| Stage 1              | 510    | -      | -      |
| Stage 2              | 308    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 346    | 563    | -      |
| Stage 1              | 603    | -      | -      |
| Stage 2              | 745    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 346    | 563    | -      |
| Mov Cap-2 Maneuver   | 346    | -      | -      |
| Stage 1              | 603    | -      | -      |
| Stage 2              | 745    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1055 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0        | 469                                                                               | 0      | 0     | 283                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0        | 469                                                                               | 0      | 0     | 283                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0        | 510                                                                               | 0      | 0     | 308                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 818                                                                               | 510      | 0                                                                                 | 0      | 510   | 0                                                                                 |
| Stage 1                  | 510                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 308                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 346                                                                               | 563      | -                                                                                 | -      | 1055  | -                                                                                 |
| Stage 1                  | 603                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 745                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 346                                                                               | 563      | -                                                                                 | -      | 1055  | -                                                                                 |
| Mov Cap-2 Maneuver       | 346                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 603                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 745                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 | 0        |                                                                                   | 0      |       |                                                                                   |
| HCM LOS                  | A                                                                                 |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | -                                                                                 | 1055   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | -                                                                                 | -      | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 0                                                                                 | 0      | -     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | A                                                                                 | A      | -     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | -                                                                                 | 0      | -     |                                                                                   |



| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 469                                                                               | 0    | 0    | 283                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 469                                                                               | 0    | 0    | 283                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 510                                                                               | 0    | 0    | 308                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 818    | 510    | 0      |
| Stage 1              | 510    | -      | -      |
| Stage 2              | 308    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 346    | 563    | -      |
| Stage 1              | 603    | -      | -      |
| Stage 2              | 745    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 346    | 563    | -      |
| Mov Cap-2 Maneuver   | 346    | -      | -      |
| Stage 1              | 603    | -      | -      |
| Stage 2              | 745    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT |
|-----------------------|-----|----------|------|-----|
| Capacity (veh/h)      | -   | -        | 1055 | -   |
| HCM Lane V/C Ratio    | -   | -        | -    | -   |
| HCM Control Delay (s) | -   | -        | 0    | -   |
| HCM Lane LOS          | -   | -        | A    | -   |
| HCM 95th %tile Q(veh) | -   | -        | 0    | -   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 469                                                                               | 0    | 0    | 283                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 469                                                                               | 0    | 0    | 283                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 510                                                                               | 0    | 0    | 308                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 818    | 510    | 0      |
| Stage 1              | 510    | -      | -      |
| Stage 2              | 308    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 346    | 563    | -      |
| Stage 1              | 603    | -      | -      |
| Stage 2              | 745    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 346    | 563    | -      |
| Mov Cap-2 Maneuver   | 346    | -      | -      |
| Stage 1              | 603    | -      | -      |
| Stage 2              | 745    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1055 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

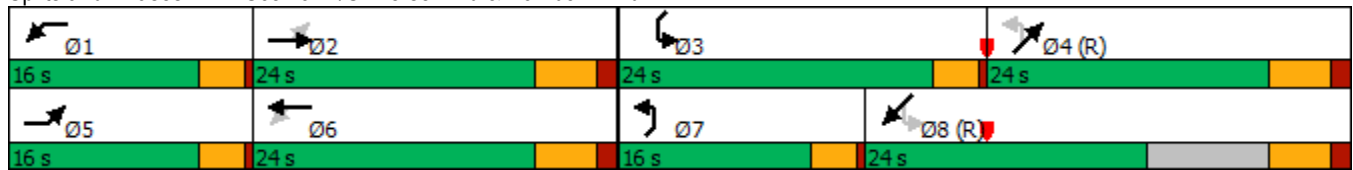
|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 3                                                                                 | 256                                                                               | 11                                                                                | 60                                                                                | 392                                                                               | 419                                                                               | 11                                                                                  | 49                                                                                  | 36                                                                                  | 235                                                                                 | 47                                                                                  | 3                                                                                   |
| Future Volume (vph)        | 3                                                                                 | 256                                                                               | 11                                                                                | 60                                                                                | 392                                                                               | 419                                                                               | 11                                                                                  | 49                                                                                  | 36                                                                                  | 235                                                                                 | 47                                                                                  | 3                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.922                                                                             |                                                                                   |                                                                                     | 0.940                                                                               |                                                                                     |                                                                                     | 0.988                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3263                                                                              | 0                                                                                 | 1770                                                                                | 1751                                                                                | 0                                                                                   | 1770                                                                                | 1840                                                                                | 0                                                                                   |
| Flt Permitted              | 0.175                                                                             |                                                                                   |                                                                                   | 0.377                                                                             |                                                                                   |                                                                                   | 0.707                                                                               |                                                                                     |                                                                                     | 0.618                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 326                                                                               | 3514                                                                              | 0                                                                                 | 702                                                                               | 3263                                                                              | 0                                                                                 | 1317                                                                                | 1751                                                                                | 0                                                                                   | 1151                                                                                | 1840                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 283                                                                               |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 5                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 6                                                                                 | 394                                                                               | 18                                                                                | 71                                                                                | 436                                                                               | 476                                                                               | 18                                                                                  | 63                                                                                  | 42                                                                                  | 280                                                                                 | 71                                                                                  | 6                                                                                   |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 6                                                                                 | 412                                                                               | 0                                                                                 | 71                                                                                | 912                                                                               | 0                                                                                 | 18                                                                                  | 105                                                                                 | 0                                                                                   | 280                                                                                 | 77                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

No Build 2023 PM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022

|                                                                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                                                              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase                                                          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)                                                     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)                                                       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)                                                         | 16.0                                                                              | 24.0                                                                              |                                                                                   | 16.0                                                                              | 24.0                                                                              |                                                                                   | 16.0                                                                                | 24.0                                                                                |                                                                                     | 24.0                                                                                | 24.0                                                                                |                                                                                     |
| Total Split (%)                                                         | 18.2%                                                                             | 27.3%                                                                             |                                                                                   | 18.2%                                                                             | 27.3%                                                                             |                                                                                   | 18.2%                                                                               | 27.3%                                                                               |                                                                                     | 27.3%                                                                               | 27.3%                                                                               |                                                                                     |
| Maximum Green (s)                                                       | 12.5                                                                              | 18.5                                                                              |                                                                                   | 12.5                                                                              | 18.5                                                                              |                                                                                   | 12.5                                                                                | 18.5                                                                                |                                                                                     | 20.5                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)                                                         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)                                                        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)                                                    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)                                                     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                                                                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?                                                      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode                                                             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)                                                           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)                                                     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effct Green (s)                                                     | 26.2                                                                              | 20.8                                                                              |                                                                                   | 31.0                                                                              | 27.3                                                                              |                                                                                   | 39.5                                                                                | 33.0                                                                                |                                                                                     | 50.0                                                                                | 44.6                                                                                |                                                                                     |
| Actuated g/C Ratio                                                      | 0.30                                                                              | 0.24                                                                              |                                                                                   | 0.35                                                                              | 0.31                                                                              |                                                                                   | 0.45                                                                                | 0.38                                                                                |                                                                                     | 0.57                                                                                | 0.51                                                                                |                                                                                     |
| v/c Ratio                                                               | 0.04                                                                              | 0.50                                                                              |                                                                                   | 0.22                                                                              | 0.76                                                                              |                                                                                   | 0.03                                                                                | 0.15                                                                                |                                                                                     | 0.38                                                                                | 0.08                                                                                |                                                                                     |
| Control Delay                                                           | 17.3                                                                              | 31.2                                                                              |                                                                                   | 19.8                                                                              | 23.0                                                                              |                                                                                   | 10.9                                                                                | 15.9                                                                                |                                                                                     | 12.2                                                                                | 13.5                                                                                |                                                                                     |
| Queue Delay                                                             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay                                                             | 17.3                                                                              | 31.2                                                                              |                                                                                   | 19.8                                                                              | 23.0                                                                              |                                                                                   | 10.9                                                                                | 15.9                                                                                |                                                                                     | 12.2                                                                                | 13.5                                                                                |                                                                                     |
| LOS                                                                     | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                   | B                                                                                   |                                                                                     | B                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay                                                          |                                                                                   | 31.0                                                                              |                                                                                   |                                                                                   | 22.8                                                                              |                                                                                   |                                                                                     | 15.1                                                                                |                                                                                     |                                                                                     | 12.5                                                                                |                                                                                     |
| Approach LOS                                                            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)                                                  | 2                                                                                 | 106                                                                               |                                                                                   | 27                                                                                | 162                                                                               |                                                                                   | 4                                                                                   | 24                                                                                  |                                                                                     | 73                                                                                  | 17                                                                                  |                                                                                     |
| Queue Length 95th (ft)                                                  | 5                                                                                 | 98                                                                                |                                                                                   | 47                                                                                | 245                                                                               |                                                                                   | 10                                                                                  | 59                                                                                  |                                                                                     | 128                                                                                 | 38                                                                                  |                                                                                     |
| Internal Link Dist (ft)                                                 |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)                                                    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                 |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)                                                     | 320                                                                               | 835                                                                               |                                                                                   | 398                                                                               | 1207                                                                              |                                                                                   | 769                                                                                 | 679                                                                                 |                                                                                     | 798                                                                                 | 935                                                                                 |                                                                                     |
| Starvation Cap Reductn                                                  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn                                                     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio                                                       | 0.02                                                                              | 0.49                                                                              |                                                                                   | 0.18                                                                              | 0.76                                                                              |                                                                                   | 0.02                                                                                | 0.15                                                                                |                                                                                     | 0.35                                                                                | 0.08                                                                                |                                                                                     |
| Intersection Summary                                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type: Other                                                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Cycle Length: 88                                                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length: 88                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Offset: 48 (55%), Referenced to phase 4:NETL and 8:SWTL, Start of Green |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Natural Cycle: 80                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type: Actuated-Coordinated                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Maximum v/c Ratio: 0.76                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Signal Delay: 22.2                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | Intersection LOS: C                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization 59.8%                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | ICU Level of Service B                                                            |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min) 15                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd





| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0                                                                                 |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | 1622   | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1622   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1622 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 0

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 0      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 0      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1022   |
| Mov Cap-2 Maneuver   | -      | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |

# **APPENDIX I**

## **Phase 1 2023 - Build Synchro Reports**



|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 160                                                                               | 410                                                                               | 60                                                                                | 100                                                                               | 180                                                                               | 124                                                                               | 12                                                                                  | 206                                                                                 | 173                                                                                 | 287                                                                                 | 470                                                                                 | 248                                                                                 |
| Future Volume (vph)        | 160                                                                               | 410                                                                               | 60                                                                                | 100                                                                               | 180                                                                               | 124                                                                               | 12                                                                                  | 206                                                                                 | 173                                                                                 | 287                                                                                 | 470                                                                                 | 248                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.941                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1753                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.143                                                                             |                                                                                   |                                                                                   | 0.156                                                                             |                                                                                   |                                                                                   | 0.298                                                                               |                                                                                     |                                                                                     | 0.464                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 266                                                                               | 1863                                                                              | 1583                                                                              | 291                                                                               | 1753                                                                              | 0                                                                                 | 555                                                                                 | 1863                                                                                | 1583                                                                                | 864                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 124                                                                               |                                                                                   | 27                                                                                |                                                                                   |                                                                                     |                                                                                     | 164                                                                                 |                                                                                     |                                                                                     | 282                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                                | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 190                                                                               | 500                                                                               | 76                                                                                | 164                                                                               | 261                                                                               | 170                                                                               | 27                                                                                  | 261                                                                                 | 293                                                                                 | 330                                                                                 | 603                                                                                 | 282                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 190                                                                               | 500                                                                               | 76                                                                                | 164                                                                               | 431                                                                               | 0                                                                                 | 27                                                                                  | 261                                                                                 | 293                                                                                 | 330                                                                                 | 603                                                                                 | 282                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 17.0  | 32.0  | 32.0  | 13.0  | 29.0  |     | 13.0  | 45.0  | 45.0  | 19.0  | 51.0  | 51.0  |
| Total Split (%)         | 15.5% | 29.1% | 29.1% | 11.8% | 26.4% |     | 11.8% | 40.9% | 40.9% | 17.3% | 46.4% | 46.4% |
| Maximum Green (s)       | 13.5  | 26.5  | 26.5  | 9.5   | 23.5  |     | 9.5   | 40.0  | 40.0  | 15.5  | 46.0  | 46.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | None  | None  | None  | None  |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 41.1  | 28.0  | 28.0  | 36.7  | 25.6  |     | 47.9  | 41.6  | 41.6  | 60.5  | 53.8  | 53.8  |
| Actuated g/C Ratio      | 0.37  | 0.25  | 0.25  | 0.33  | 0.23  |     | 0.44  | 0.38  | 0.38  | 0.55  | 0.49  | 0.49  |
| v/c Ratio               | 0.75  | 1.06  | 0.15  | 0.75  | 1.01  |     | 0.09  | 0.37  | 0.42  | 0.56  | 0.66  | 0.31  |
| Control Delay           | 42.2  | 97.9  | 2.0   | 46.4  | 85.8  |     | 12.9  | 27.2  | 13.0  | 17.8  | 26.7  | 3.1   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 42.2  | 97.9  | 2.0   | 46.4  | 85.8  |     | 12.9  | 27.2  | 13.0  | 17.8  | 26.7  | 3.1   |
| LOS                     | D     | F     | A     | D     | F     |     | B     | C     | B     | B     | C     | A     |
| Approach Delay          |       | 74.6  |       |       | 74.9  |     |       | 19.4  |       |       | 18.8  |       |
| Approach LOS            |       | E     |       |       | E     |     |       | B     |       |       | B     |       |
| Queue Length 50th (ft)  | 91    | ~393  | 0     | 77    | ~312  |     | 8     | 134   | 62    | 123   | 330   | 0     |
| Queue Length 95th (ft)  | 136   | #514  | 1     | 83    | #330  |     | 11    | 176   | 50    | 175   | 377   | 42    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 287   | 473   | 494   | 226   | 428   |     | 370   | 704   | 700   | 602   | 910   | 917   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 0.66  | 1.06  | 0.15  | 0.73  | 1.01  |     | 0.07  | 0.37  | 0.42  | 0.55  | 0.66  | 0.31  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 43.0

Intersection LOS: D

Intersection Capacity Utilization 71.8%

ICU Level of Service C

Analysis Period (min) 15

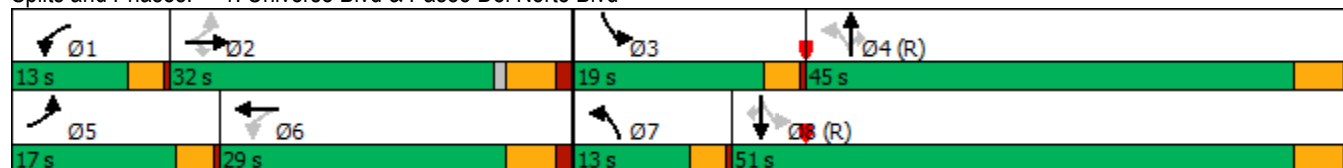
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2.2                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 12                                                                                | 27                                                                                | 57                                                                                | 196                                                                               | 595                                                                               | 129                                                                               |
| Future Vol, veh/h        | 12                                                                                | 27                                                                                | 57                                                                                | 196                                                                               | 595                                                                               | 129                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 31                                                                                | 60                                                                                | 116                                                                               | 213                                                                               | 647                                                                               | 274                                                                               |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1092                                                                              | 647                                                                               | 921                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 647                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 445                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 237                                                                               | 471                                                                               | 741                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 521                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 646                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 200                                                                               | 471                                                                               | 741                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 200                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 439                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 646                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 18                                                                                | 3.8                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 741                                                                               | -                                                                                 | 200                                                                               | 471                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.157                                                                             | -                                                                                 | 0.154                                                                             | 0.127                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 10.8                                                                              | -                                                                                 | 26.2                                                                              | 13.8                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | B                                                                                 | -                                                                                 | D                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.6                                                                               | -                                                                                 | 0.5                                                                               | 0.4                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.5                                                                               |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 6                                                                                 | 24   | 229                                                                               | 3    | 11   | 610                                                                               |
| Future Vol, veh/h        | 6                                                                                 | 24   | 229                                                                               | 3    | 11   | 610                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 7                                                                                 | 26   | 249                                                                               | 3    | 12   | 663                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 938    | 251    | 0      |
| Stage 1              | 251    | -      | -      |
| Stage 2              | 687    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 293    | 788    | -      |
| Stage 1              | 791    | -      | -      |
| Stage 2              | 499    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 289    | 788    | -      |
| Mov Cap-2 Maneuver   | 289    | -      | -      |
| Stage 1              | 791    | -      | -      |
| Stage 2              | 492    | -      | -      |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 11.5 | 0  | 0.1 |
| HCM LOS              | B    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 586   | 1313  |
| HCM Lane V/C Ratio    | -   | -        | 0.056 | 0.009 |
| HCM Control Delay (s) | -   | -        | 11.5  | 7.8   |
| HCM Lane LOS          | -   | -        | B     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.2   | 0     |



| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 232                                                                               | 0    | 0    | 610                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 232                                                                               | 0    | 0    | 610                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 252                                                                               | 0    | 0    | 663                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 915    | 252    | 0      |
| Stage 1              | 252    | -      | -      |
| Stage 2              | 663    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 303    | 787    | -      |
| Stage 1              | 790    | -      | -      |
| Stage 2              | 512    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 303    | 787    | -      |
| Mov Cap-2 Maneuver   | 303    | -      | -      |
| Stage 1              | 790    | -      | -      |
| Stage 2              | 512    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT |
|-----------------------|-----|----------|------|-----|
| Capacity (veh/h)      | -   | -        | 1313 | -   |
| HCM Lane V/C Ratio    | -   | -        | -    | -   |
| HCM Control Delay (s) | -   | -        | 0    | -   |
| HCM Lane LOS          | -   | -        | A    | -   |
| HCM 95th %tile Q(veh) | -   | -        | 0    | -   |

Intersection

Int Delay, s/veh 0.4

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 17                                                                                | 8    | 224                                                                               | 7    | 3    | 613                                                                               |
| Future Vol, veh/h        | 17                                                                                | 8    | 224                                                                               | 7    | 3    | 613                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 18                                                                                | 9    | 243                                                                               | 8    | 3    | 666                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 919    | 247    | 0      |
| Stage 1              | 247    | -      | -      |
| Stage 2              | 672    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 301    | 792    | -      |
| Stage 1              | 794    | -      | -      |
| Stage 2              | 508    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 300    | 792    | -      |
| Mov Cap-2 Maneuver   | 300    | -      | -      |
| Stage 1              | 794    | -      | -      |
| Stage 2              | 506    | -      | -      |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 15.4 | 0  | 0  |
| HCM LOS              | C    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 374   | 1314  |
| HCM Lane V/C Ratio    | -   | -        | 0.073 | 0.002 |
| HCM Control Delay (s) | -   | -        | 15.4  | 7.7   |
| HCM Lane LOS          | -   | -        | C     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.2   | 0     |

Intersection

Int Delay, s/veh 0

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 231                                                                               | 0    | 0    | 630                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 231                                                                               | 0    | 0    | 630                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 251                                                                               | 0    | 0    | 685                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 936    | 251    | 0      |
| Stage 1              | 251    | -      | -      |
| Stage 2              | 685    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 294    | 788    | -      |
| Stage 1              | 791    | -      | -      |
| Stage 2              | 500    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 294    | 788    | -      |
| Mov Cap-2 Maneuver   | 294    | -      | -      |
| Stage 1              | 791    | -      | -      |
| Stage 2              | 500    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1314 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 4                                                                                 | 459                                                                               | 15                                                                                | 11                                                                                | 363                                                                               | 185                                                                               | 55                                                                                  | 43                                                                                  | 49                                                                                  | 585                                                                                 | 29                                                                                  | 17                                                                                  |
| Future Volume (vph)        | 4                                                                                 | 459                                                                               | 15                                                                                | 11                                                                                | 363                                                                               | 185                                                                               | 55                                                                                  | 43                                                                                  | 49                                                                                  | 585                                                                                 | 29                                                                                  | 17                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.957                                                                             |                                                                                   |                                                                                     | 0.921                                                                               |                                                                                     |                                                                                     | 0.924                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3387                                                                              | 0                                                                                 | 1770                                                                                | 1716                                                                                | 0                                                                                   | 1770                                                                                | 1721                                                                                | 0                                                                                   |
| Flt Permitted              | 0.179                                                                             |                                                                                   |                                                                                   | 0.243                                                                             |                                                                                   |                                                                                   | 0.706                                                                               |                                                                                     |                                                                                     | 0.524                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 333                                                                               | 3514                                                                              | 0                                                                                 | 453                                                                               | 3387                                                                              | 0                                                                                 | 1315                                                                                | 1716                                                                                | 0                                                                                   | 976                                                                                 | 1721                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 61                                                                                |                                                                                   |                                                                                     | 49                                                                                  |                                                                                     |                                                                                     | 40                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 8                                                                                 | 588                                                                               | 30                                                                                | 22                                                                                | 542                                                                               | 215                                                                               | 112                                                                                 | 61                                                                                  | 67                                                                                  | 672                                                                                 | 39                                                                                  | 40                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 8                                                                                 | 618                                                                               | 0                                                                                 | 22                                                                                | 757                                                                               | 0                                                                                 | 112                                                                                 | 128                                                                                 | 0                                                                                   | 672                                                                                 | 79                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |



| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 36.0  |     | 16.0  | 34.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 16.0% | 36.0% |     | 16.0% | 34.0% |     | 16.0% | 24.0% |     | 24.0% | 24.0% |     |
| Maximum Green (s)       | 12.5  | 30.5  |     | 12.5  | 28.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 30.2  | 26.3  |     | 31.3  | 28.2  |     | 27.9  | 19.0  |     | 61.1  | 48.7  |     |
| Actuated g/C Ratio      | 0.30  | 0.26  |     | 0.31  | 0.28  |     | 0.28  | 0.19  |     | 0.61  | 0.49  |     |
| v/c Ratio               | 0.05  | 0.67  |     | 0.11  | 0.76  |     | 0.28  | 0.35  |     | 0.76  | 0.09  |     |
| Control Delay           | 19.2  | 36.1  |     | 20.7  | 34.9  |     | 16.9  | 25.0  |     | 22.1  | 11.0  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 19.2  | 36.1  |     | 20.7  | 34.9  |     | 16.9  | 25.0  |     | 22.1  | 11.0  |     |
| LOS                     | B     | D     |     | C     | C     |     | B     | C     |     | C     | B     |     |
| Approach Delay          |       | 35.9  |     |       | 34.5  |     |       | 21.2  |     |       | 20.9  |     |
| Approach LOS            |       | D     |     |       | C     |     |       | C     |     |       | C     |     |
| Queue Length 50th (ft)  | 4     | 181   |     | 10    | 216   |     | 25    | 43    |     | 229   | 12    |     |
| Queue Length 95th (ft)  | 6     | 185   |     | 12    | 173   |     | 35    | 68    |     | #623  | 38    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 285   | 1089  |     | 309   | 1125  |     | 497   | 366   |     | 887   | 859   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.03  | 0.57  |     | 0.07  | 0.67  |     | 0.23  | 0.35  |     | 0.76  | 0.09  |     |

## Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 60 (60%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 29.3

Intersection LOS: C

Intersection Capacity Utilization 64.2%

ICU Level of Service C

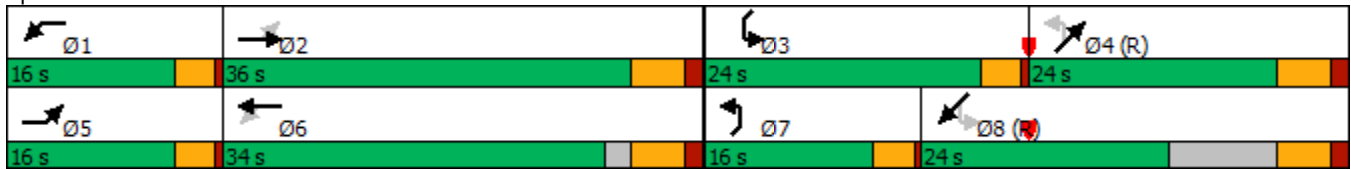
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.



Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |        |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 | Minor1 |                                                                                   |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -      |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |        | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |        | 0                                                                                 |                                                                                   |       |
| HCM LOS                  | A                                                                                 |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -      | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -      | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -      | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |

Intersection

Int Delay, s/veh 0

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1622   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1622   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1622 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

| Intersection             |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0    |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 0      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 0      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1022   |
| Mov Cap-2 Maneuver   | -      | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |



|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (vph)       | 216                                                                               | 286                                                                               | 8                                                                                 | 181                                                                               | 402                                                                               | 297                                                                               | 9                                                                                   | 365                                                                                 | 128                                                                                 | 148                                                                                 | 315                                                                                 | 268                                                                                 |
| Future Volume (vph)        | 216                                                                               | 286                                                                               | 8                                                                                 | 181                                                                               | 402                                                                               | 297                                                                               | 9                                                                                   | 365                                                                                 | 128                                                                                 | 148                                                                                 | 315                                                                                 | 268                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.938                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1747                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.099                                                                             |                                                                                   |                                                                                   | 0.406                                                                             |                                                                                   |                                                                                   | 0.448                                                                               |                                                                                     |                                                                                     | 0.169                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 184                                                                               | 1863                                                                              | 1583                                                                              | 756                                                                               | 1747                                                                              | 0                                                                                 | 835                                                                                 | 1863                                                                                | 1583                                                                                | 315                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 89                                                                                |                                                                                   | 36                                                                                |                                                                                   |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 282                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.73                                                                              | 0.81                                                                              | 0.62                                                                              | 0.80                                                                              | 0.91                                                                              | 0.95                                                                              | 0.75                                                                                | 0.85                                                                                | 0.81                                                                                | 0.79                                                                                | 0.81                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 296                                                                               | 353                                                                               | 13                                                                                | 226                                                                               | 442                                                                               | 313                                                                               | 12                                                                                  | 429                                                                                 | 158                                                                                 | 187                                                                                 | 389                                                                                 | 282                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 296                                                                               | 353                                                                               | 13                                                                                | 226                                                                               | 755                                                                               | 0                                                                                 | 12                                                                                  | 429                                                                                 | 158                                                                                 | 187                                                                                 | 389                                                                                 | 282                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   | 8                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 20.0                                                                              | 20.0                                                                              | 3.0                                                                               | 20.0                                                                              |                                                                                   | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                |
| Minimum Split (s)       | 9.5                                                                               | 34.5                                                                              | 34.5                                                                              | 9.5                                                                               | 25.5                                                                              |                                                                                   | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                |
| Total Split (s)         | 15.0                                                                              | 45.0                                                                              | 45.0                                                                              | 15.0                                                                              | 45.0                                                                              |                                                                                   | 15.0                                                                                | 35.0                                                                                | 35.0                                                                                | 15.0                                                                                | 35.0                                                                                | 35.0                                                                                |
| Total Split (%)         | 13.6%                                                                             | 40.9%                                                                             | 40.9%                                                                             | 13.6%                                                                             | 40.9%                                                                             |                                                                                   | 13.6%                                                                               | 31.8%                                                                               | 31.8%                                                                               | 13.6%                                                                               | 31.8%                                                                               | 31.8%                                                                               |
| Maximum Green (s)       | 11.5                                                                              | 39.5                                                                              | 39.5                                                                              | 11.5                                                                              | 39.5                                                                              |                                                                                   | 11.5                                                                                | 30.0                                                                                | 30.0                                                                                | 11.5                                                                                | 30.0                                                                                | 30.0                                                                                |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Recall Mode             | None                                                                              | Min                                                                               | Min                                                                               | None                                                                              | Min                                                                               |                                                                                   | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |
| Walk Time (s)           |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)     |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                   | 12.0                                                                              |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 9.0                                                                                 | 9.0                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |
| Act Effect Green (s)    | 54.0                                                                              | 40.6                                                                              | 40.6                                                                              | 51.9                                                                              | 39.5                                                                              |                                                                                   | 37.1                                                                                | 31.1                                                                                | 31.1                                                                                | 46.5                                                                                | 43.2                                                                                | 43.2                                                                                |
| Actuated g/C Ratio      | 0.49                                                                              | 0.37                                                                              | 0.37                                                                              | 0.47                                                                              | 0.36                                                                              |                                                                                   | 0.34                                                                                | 0.28                                                                                | 0.28                                                                                | 0.42                                                                                | 0.39                                                                                | 0.39                                                                                |
| v/c Ratio               | 1.16                                                                              | 0.51                                                                              | 0.02                                                                              | 0.50                                                                              | 1.16                                                                              |                                                                                   | 0.04                                                                                | 0.81                                                                                | 0.31                                                                                | 0.69                                                                                | 0.53                                                                                | 0.36                                                                                |
| Control Delay           | 133.6                                                                             | 30.7                                                                              | 0.0                                                                               | 19.3                                                                              | 121.0                                                                             |                                                                                   | 19.3                                                                                | 50.9                                                                                | 15.4                                                                                | 34.8                                                                                | 29.7                                                                                | 4.3                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 133.6                                                                             | 30.7                                                                              | 0.0                                                                               | 19.3                                                                              | 121.0                                                                             |                                                                                   | 19.3                                                                                | 50.9                                                                                | 15.4                                                                                | 34.8                                                                                | 29.7                                                                                | 4.3                                                                                 |
| LOS                     | F                                                                                 | C                                                                                 | A                                                                                 | B                                                                                 | F                                                                                 |                                                                                   | B                                                                                   | D                                                                                   | B                                                                                   | C                                                                                   | C                                                                                   | A                                                                                   |
| Approach Delay          |                                                                                   | 76.1                                                                              |                                                                                   |                                                                                   | 97.6                                                                              |                                                                                   |                                                                                     | 40.9                                                                                |                                                                                     |                                                                                     | 22.5                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                     | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | ~197                                                                              | 195                                                                               | 0                                                                                 | 86                                                                                | ~618                                                                              |                                                                                   | 5                                                                                   | 286                                                                                 | 34                                                                                  | 84                                                                                  | 201                                                                                 | 0                                                                                   |
| Queue Length 95th (ft)  | #254                                                                              | 250                                                                               | 0                                                                                 | 116                                                                               | #855                                                                              |                                                                                   | 14                                                                                  | #406                                                                                | 73                                                                                  | 116                                                                                 | 293                                                                                 | 58                                                                                  |
| Internal Link Dist (ft) |                                                                                   | 127                                                                               |                                                                                   |                                                                                   | 462                                                                               |                                                                                   |                                                                                     | 201                                                                                 |                                                                                     |                                                                                     | 642                                                                                 |                                                                                     |
| Turn Bay Length (ft)    |                                                                                   |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   |                                                                                   | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Base Capacity (vph)     | 256                                                                               | 686                                                                               | 639                                                                               | 470                                                                               | 650                                                                               |                                                                                   | 432                                                                                 | 527                                                                                 | 515                                                                                 | 285                                                                                 | 732                                                                                 | 793                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 1.16                                                                              | 0.51                                                                              | 0.02                                                                              | 0.48                                                                              | 1.16                                                                              |                                                                                   | 0.03                                                                                | 0.81                                                                                | 0.31                                                                                | 0.66                                                                                | 0.53                                                                                | 0.36                                                                                |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 48 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 61.3

Intersection LOS: E

Intersection Capacity Utilization 94.1%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 3                                                                                 | 7                                                                                 | 4                                                                                 | 489                                                                               | 307                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 3                                                                                 | 7                                                                                 | 4                                                                                 | 489                                                                               | 307                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 6                                                                                 | 21                                                                                | 16                                                                                | 532                                                                               | 330                                                                               | 0                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 894                                                                               | 330                                                                               | 330                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 330                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 564                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 312                                                                               | 712                                                                               | 1229                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 728                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 569                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 308                                                                               | 712                                                                               | 1229                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 308                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 719                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 569                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 11.7                                                                              | 0.2                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1229                                                                              | -                                                                                 | 308                                                                               | 712                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.013                                                                             | -                                                                                 | 0.019                                                                             | 0.03                                                                              | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 8                                                                                 | -                                                                                 | 16.9                                                                              | 10.2                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | 0.1                                                                               | 0.1                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.6                                                                               |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 4                                                                                 | 17   | 475                                                                               | 6    | 22   | 291                                                                               |
| Future Vol, veh/h        | 4                                                                                 | 17   | 475                                                                               | 6    | 22   | 291                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 4                                                                                 | 18   | 516                                                                               | 7    | 24   | 316                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 884    | 520    | 0      | 0 | 523   |
| Stage 1              | 520    | -      | -      | - | -     |
| Stage 2              | 364    | -      | -      | - | -     |
| Critical Hdwy        | 6.42   | 6.22   | -      | - | 4.12  |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.518  | 3.318  | -      | - | 2.218 |
| Pot Cap-1 Maneuver   | 316    | 556    | -      | - | 1043  |
| Stage 1              | 597    | -      | -      | - | -     |
| Stage 2              | 703    | -      | -      | - | -     |
| Platoon blocked, %   |        |        | -      | - | -     |
| Mov Cap-1 Maneuver   | 307    | 556    | -      | - | 1043  |
| Mov Cap-2 Maneuver   | 307    | -      | -      | - | -     |
| Stage 1              | 597    | -      | -      | - | -     |
| Stage 2              | 683    | -      | -      | - | -     |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 12.8 | 0  | 0.6 |
| HCM LOS              | B    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 482   | 1043  |
| HCM Lane V/C Ratio    | -   | -        | 0.047 | 0.023 |
| HCM Control Delay (s) | -   | -        | 12.8  | 8.5   |
| HCM Lane LOS          | -   | -        | B     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.1   | 0.1   |



| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0        | 481                                                                               | 0      | 0     | 295                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0        | 481                                                                               | 0      | 0     | 295                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0        | 523                                                                               | 0      | 0     | 321                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 844                                                                               | 523      | 0                                                                                 | 0      | 523   | 0                                                                                 |
| Stage 1                  | 523                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 321                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 334                                                                               | 554      | -                                                                                 | -      | 1043  | -                                                                                 |
| Stage 1                  | 595                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 735                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 334                                                                               | 554      | -                                                                                 | -      | 1043  | -                                                                                 |
| Mov Cap-2 Maneuver       | 334                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 595                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 735                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 | 0        |                                                                                   | 0      |       |                                                                                   |
| HCM LOS                  | A                                                                                 |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | -                                                                                 | 1043   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | -                                                                                 | -      | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 0                                                                                 | 0      | -     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | A                                                                                 | A      | -     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | -                                                                                 | 0      | -     |                                                                                   |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.4                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 13                                                                                | 6        | 475                                                                               | 17     | 8     | 287                                                                               |
| Future Vol, veh/h        | 13                                                                                | 6        | 475                                                                               | 17     | 8     | 287                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 14                                                                                | 7        | 516                                                                               | 18     | 9     | 312                                                                               |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 855                                                                               | 525      | 0                                                                                 | 0      | 534   | 0                                                                                 |
| Stage 1                  | 525                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 330                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 329                                                                               | 552      | -                                                                                 | -      | 1034  | -                                                                                 |
| Stage 1                  | 593                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 728                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 325                                                                               | 552      | -                                                                                 | -      | 1034  | -                                                                                 |
| Mov Cap-2 Maneuver       | 325                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 593                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 720                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 15.2                                                                              | 0        |                                                                                   | 0.2    |       |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 374                                                                               | 1034   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.055                                                                             | 0.008  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 15.2                                                                              | 8.5    | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.2                                                                               | 0      | -     |                                                                                   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 492                                                                               | 0    | 0    | 300                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 492                                                                               | 0    | 0    | 300                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 535                                                                               | 0    | 0    | 326                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 861    | 535    | 0      |
| Stage 1              | 535    | -      | -      |
| Stage 2              | 326    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 326    | 545    | -      |
| Stage 1              | 587    | -      | -      |
| Stage 2              | 731    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 326    | 545    | -      |
| Mov Cap-2 Maneuver   | 326    | -      | -      |
| Stage 1              | 587    | -      | -      |
| Stage 2              | 731    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1033 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 4                                                                                 | 256                                                                               | 11                                                                                | 60                                                                                | 392                                                                               | 439                                                                               | 11                                                                                  | 51                                                                                  | 36                                                                                  | 250                                                                                 | 48                                                                                  | 4                                                                                   |
| Future Volume (vph)        | 4                                                                                 | 256                                                                               | 11                                                                                | 60                                                                                | 392                                                                               | 439                                                                               | 11                                                                                  | 51                                                                                  | 36                                                                                  | 250                                                                                 | 48                                                                                  | 4                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.920                                                                             |                                                                                   |                                                                                     | 0.941                                                                               |                                                                                     |                                                                                     | 0.985                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3256                                                                              | 0                                                                                 | 1770                                                                                | 1753                                                                                | 0                                                                                   | 1770                                                                                | 1835                                                                                | 0                                                                                   |
| Flt Permitted              | 0.169                                                                             |                                                                                   |                                                                                   | 0.383                                                                             |                                                                                   |                                                                                   | 0.704                                                                               |                                                                                     |                                                                                     | 0.613                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 315                                                                               | 3514                                                                              | 0                                                                                 | 713                                                                               | 3256                                                                              | 0                                                                                 | 1311                                                                                | 1753                                                                                | 0                                                                                   | 1142                                                                                | 1835                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 297                                                                               |                                                                                   |                                                                                     | 33                                                                                  |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 8                                                                                 | 394                                                                               | 18                                                                                | 71                                                                                | 436                                                                               | 499                                                                               | 18                                                                                  | 65                                                                                  | 42                                                                                  | 298                                                                                 | 73                                                                                  | 8                                                                                   |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 8                                                                                 | 412                                                                               | 0                                                                                 | 71                                                                                | 935                                                                               | 0                                                                                 | 18                                                                                  | 107                                                                                 | 0                                                                                   | 298                                                                                 | 81                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

Build 2023 PM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022

|                                                                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                                                              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase                                                          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)                                                     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)                                                       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)                                                         | 16.0                                                                              | 24.0                                                                              |                                                                                   | 16.0                                                                              | 24.0                                                                              |                                                                                   | 16.0                                                                                | 24.0                                                                                |                                                                                     | 24.0                                                                                | 24.0                                                                                |                                                                                     |
| Total Split (%)                                                         | 18.2%                                                                             | 27.3%                                                                             |                                                                                   | 18.2%                                                                             | 27.3%                                                                             |                                                                                   | 18.2%                                                                               | 27.3%                                                                               |                                                                                     | 27.3%                                                                               | 27.3%                                                                               |                                                                                     |
| Maximum Green (s)                                                       | 12.5                                                                              | 18.5                                                                              |                                                                                   | 12.5                                                                              | 18.5                                                                              |                                                                                   | 12.5                                                                                | 18.5                                                                                |                                                                                     | 20.5                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)                                                         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)                                                        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)                                                    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)                                                     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                                                                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?                                                      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode                                                             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)                                                           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)                                                     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effct Green (s)                                                     | 27.1                                                                              | 21.6                                                                              |                                                                                   | 31.8                                                                              | 28.1                                                                              |                                                                                   | 37.9                                                                                | 31.5                                                                                |                                                                                     | 49.2                                                                                | 43.8                                                                                |                                                                                     |
| Actuated g/C Ratio                                                      | 0.31                                                                              | 0.25                                                                              |                                                                                   | 0.36                                                                              | 0.32                                                                              |                                                                                   | 0.43                                                                                | 0.36                                                                                |                                                                                     | 0.56                                                                                | 0.50                                                                                |                                                                                     |
| v/c Ratio                                                               | 0.05                                                                              | 0.48                                                                              |                                                                                   | 0.21                                                                              | 0.75                                                                              |                                                                                   | 0.03                                                                                | 0.17                                                                                |                                                                                     | 0.41                                                                                | 0.09                                                                                |                                                                                     |
| Control Delay                                                           | 17.2                                                                              | 30.4                                                                              |                                                                                   | 19.4                                                                              | 22.5                                                                              |                                                                                   | 11.3                                                                                | 17.0                                                                                |                                                                                     | 12.9                                                                                | 13.6                                                                                |                                                                                     |
| Queue Delay                                                             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay                                                             | 17.2                                                                              | 30.4                                                                              |                                                                                   | 19.4                                                                              | 22.5                                                                              |                                                                                   | 11.3                                                                                | 17.0                                                                                |                                                                                     | 12.9                                                                                | 13.6                                                                                |                                                                                     |
| LOS                                                                     | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                   | B                                                                                   |                                                                                     | B                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay                                                          |                                                                                   | 30.2                                                                              |                                                                                   |                                                                                   | 22.2                                                                              |                                                                                   |                                                                                     | 16.2                                                                                |                                                                                     |                                                                                     | 13.0                                                                                |                                                                                     |
| Approach LOS                                                            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)                                                  | 3                                                                                 | 105                                                                               |                                                                                   | 26                                                                                | 163                                                                               |                                                                                   | 4                                                                                   | 26                                                                                  |                                                                                     | 80                                                                                  | 19                                                                                  |                                                                                     |
| Queue Length 95th (ft)                                                  | 6                                                                                 | 98                                                                                |                                                                                   | 47                                                                                | 251                                                                               |                                                                                   | 10                                                                                  | 62                                                                                  |                                                                                     | 136                                                                                 | 39                                                                                  |                                                                                     |
| Internal Link Dist (ft)                                                 |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)                                                    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                 |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)                                                     | 320                                                                               | 867                                                                               |                                                                                   | 407                                                                               | 1242                                                                              |                                                                                   | 745                                                                                 | 647                                                                                 |                                                                                     | 784                                                                                 | 916                                                                                 |                                                                                     |
| Starvation Cap Reductn                                                  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn                                                     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio                                                       | 0.03                                                                              | 0.48                                                                              |                                                                                   | 0.17                                                                              | 0.75                                                                              |                                                                                   | 0.02                                                                                | 0.17                                                                                |                                                                                     | 0.38                                                                                | 0.09                                                                                |                                                                                     |
| Intersection Summary                                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type: Other                                                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Cycle Length: 88                                                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length: 88                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Offset: 48 (55%), Referenced to phase 4:NETL and 8:SWTL, Start of Green |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Natural Cycle: 80                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type: Actuated-Coordinated                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Maximum v/c Ratio: 0.75                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Signal Delay: 21.8                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | Intersection LOS: C                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization 61.3%                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | ICU Level of Service B                                                            |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min) 15                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



Splits and Phases: 7: Scenic Dr/Universe Blvd &amp; Rainbow Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 16 s                                                                                 | 24 s                                                                                 | 24 s                                                                                 | 24 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 16 s                                                                                 | 24 s                                                                                 | 16 s                                                                                 | 24 s                                                                                       |

Intersection

Int Delay, s/veh 0

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 28                                                                                | 0    | 0    | 21                                                                                | 0                                                                                 | 0    |
| Future Vol, veh/h        | 28                                                                                | 0    | 0    | 21                                                                                | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 30                                                                                | 0    | 0    | 23                                                                                | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 30     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | 1583   | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1583   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1583 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 2                                                                                 |        |       |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL   | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |       |  |  |       |
| Traffic Vol, veh/h       | 14                                                                                | 14     | 0     | 10                                                                                | 11                                                                                | 0     |
| Future Vol, veh/h        | 14                                                                                | 14     | 0     | 10                                                                                | 11                                                                                | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free  | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -     | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -     | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92    | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2     | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 15                                                                                | 15     | 0     | 11                                                                                | 12                                                                                | 0     |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 |       | Minor1                                                                            |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 30    | 0                                                                                 | 34                                                                                | 23    |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 23                                                                                | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 11                                                                                | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12  | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -     | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -     | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218 | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1583  | -                                                                                 | 979                                                                               | 1054  |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 1000                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 1012                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -      |       | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1583  | -                                                                                 | 979                                                                               | 1054  |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -     | -                                                                                 | 979                                                                               | -     |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 1000                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 1012                                                                              | -     |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |       | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |       | 8.7                                                                               |                                                                                   |       |
| HCM LOS                  | A                                                                                 |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR   | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 979                                                                               | -      | -     | 1583                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.012                                                                             | -      | -     | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 8.7                                                                               | -      | -     | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -      | -     | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | -     | 0                                                                                 | -                                                                                 |       |

Intersection

Int Delay, s/veh 3.4

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 14   | 0    | 0                                                                                 | 10                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 14   | 0    | 0                                                                                 | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 15   | 0    | 0                                                                                 | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 15     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1603   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1603   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.6 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 1011  | -   | -   | 1603 | -   |
| HCM Lane V/C Ratio    | 0.011 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.6   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 0

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 0      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 0      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1022   |
| Mov Cap-2 Maneuver   | -      | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |



# **APPENDIX J**

## **Phase II 2025 - No Build Synchro Reports**

# Lanes, Volumes, Timings

## 1: Universe Blvd & Paseo Del Norte Blvd

04/14/2022

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (vph)       | 184                                                                               | 438                                                                               | 63                                                                                | 97                                                                                | 199                                                                               | 151                                                                               | 11                                                                                 | 225                                                                                 | 159                                                                                 | 317                                                                                 | 506                                                                                 | 276                                                                                 |
| Future Volume (vph)        | 184                                                                               | 438                                                                               | 63                                                                                | 97                                                                                | 199                                                                               | 151                                                                               | 11                                                                                 | 225                                                                                 | 159                                                                                 | 317                                                                                 | 506                                                                                 | 276                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                 |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.937                                                                             |                                                                                   |                                                                                    |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1745                                                                              | 0                                                                                 | 1770                                                                               | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.143                                                                             |                                                                                   |                                                                                   | 0.162                                                                             |                                                                                   |                                                                                   | 0.254                                                                              |                                                                                     |                                                                                     | 0.435                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 266                                                                               | 1863                                                                              | 1583                                                                              | 302                                                                               | 1745                                                                              | 0                                                                                 | 473                                                                                | 1863                                                                                | 1583                                                                                | 810                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 124                                                                               |                                                                                   | 30                                                                                |                                                                                   |                                                                                    |                                                                                     | 164                                                                                 |                                                                                     |                                                                                     | 299                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                    | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                    | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                    | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                               | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 219                                                                               | 534                                                                               | 80                                                                                | 159                                                                               | 288                                                                               | 207                                                                               | 24                                                                                 | 285                                                                                 | 269                                                                                 | 364                                                                                 | 649                                                                                 | 314                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 219                                                                               | 534                                                                               | 80                                                                                | 159                                                                               | 495                                                                               | 0                                                                                 | 24                                                                                 | 285                                                                                 | 269                                                                                 | 364                                                                                 | 649                                                                                 | 314                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                    | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                 |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                  | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                               | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                 | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                 | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                              | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                    | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                    | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                    | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                    | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                  | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                  |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |

# Lanes, Volumes, Timings

## 1: Universe Blvd & Paseo Del Norte Blvd

04/14/2022



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 17.0  | 32.0  | 32.0  | 13.0  | 29.0  |     | 13.0  | 45.0  | 45.0  | 19.0  | 51.0  | 51.0  |
| Total Split (%)         | 15.5% | 29.1% | 29.1% | 11.8% | 26.4% |     | 11.8% | 40.9% | 40.9% | 17.3% | 46.4% | 46.4% |
| Maximum Green (s)       | 13.5  | 26.5  | 26.5  | 9.5   | 23.5  |     | 9.5   | 40.0  | 40.0  | 15.5  | 46.0  | 46.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | None  | None  | None  | None  |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 42.1  | 28.0  | 28.0  | 35.6  | 24.7  |     | 47.3  | 41.1  | 41.1  | 60.5  | 53.8  | 53.8  |
| Actuated g/C Ratio      | 0.38  | 0.25  | 0.25  | 0.32  | 0.22  |     | 0.43  | 0.37  | 0.37  | 0.55  | 0.49  | 0.49  |
| v/c Ratio               | 0.81  | 1.13  | 0.16  | 0.73  | 1.20  |     | 0.09  | 0.41  | 0.39  | 0.64  | 0.71  | 0.34  |
| Control Delay           | 48.4  | 119.2 | 2.4   | 44.7  | 145.5 |     | 13.1  | 28.1  | 11.7  | 19.9  | 28.4  | 3.6   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 48.4  | 119.2 | 2.4   | 44.7  | 145.5 |     | 13.1  | 28.1  | 11.7  | 19.9  | 28.4  | 3.6   |
| LOS                     | D     | F     | A     | D     | F     |     | B     | C     | B     | B     | C     | A     |
| Approach Delay          |       | 89.4  |       |       | 121.0 |     |       | 19.8  |       |       | 20.2  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | B     |       |       | C     |       |
| Queue Length 50th (ft)  | 107   | ~444  | 0     | 75    | ~422  |     | 7     | 150   | 50    | 139   | 367   | 6     |
| Queue Length 95th (ft)  | #179  | #564  | 3     | 80    | #408  |     | 10    | 192   | 41    | 195   | 416   | 51    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 287   | 474   | 495   | 225   | 414   |     | 336   | 696   | 694   | 580   | 911   | 927   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 0.76  | 1.13  | 0.16  | 0.71  | 1.20  |     | 0.07  | 0.41  | 0.39  | 0.63  | 0.71  | 0.34  |

### Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 56.6

Intersection LOS: E

Intersection Capacity Utilization 76.2%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

# Lanes, Volumes, Timings

## 1: Universe Blvd & Paseo Del Norte Blvd

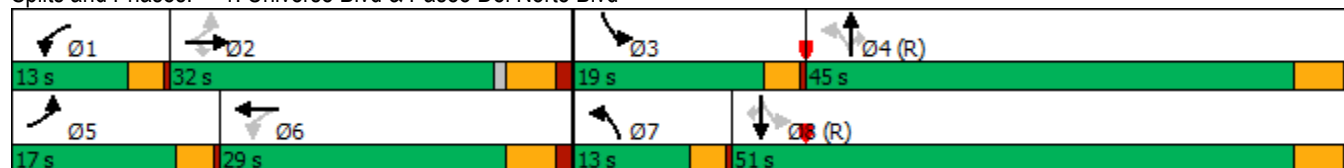
04/14/2022

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



No Build 2025 AM  
2: Universe Blvd & School Driveway

04/14/2022

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2.3                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 13                                                                                | 28                                                                                | 59                                                                                | 179                                                                               | 622                                                                               | 138                                                                               |
| Future Vol, veh/h        | 13                                                                                | 28                                                                                | 59                                                                                | 179                                                                               | 622                                                                               | 138                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 33                                                                                | 62                                                                                | 120                                                                               | 195                                                                               | 676                                                                               | 294                                                                               |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1111                                                                              | 676                                                                               | 970                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 676                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 435                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 231                                                                               | 453                                                                               | 710                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 505                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 653                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 192                                                                               | 453                                                                               | 710                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 192                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 420                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 653                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 18.9                                                                              | 4.2                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 710                                                                               | -                                                                                 | 192                                                                               | 453                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.17                                                                              | -                                                                                 | 0.174                                                                             | 0.137                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 11.1                                                                              | -                                                                                 | 27.6                                                                              | 14.2                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | B                                                                                 | -                                                                                 | D                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.6                                                                               | -                                                                                 | 0.6                                                                               | 0.5                                                                               | -                                                                                 | -                                                                                 |



No Build 2025 AM  
3: Universe Blvd & Rosa Parks Rd

04/14/2022

Intersection

Int Delay, s/veh 0

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 237                                                                               | 0    | 0    | 649                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 237                                                                               | 0    | 0    | 649                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 258                                                                               | 0    | 0    | 705                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 963    | 258    | 0      |
| Stage 1              | 258    | -      | -      |
| Stage 2              | 705    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 284    | 781    | -      |
| Stage 1              | 785    | -      | -      |
| Stage 2              | 490    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 284    | 781    | -      |
| Mov Cap-2 Maneuver   | 284    | -      | -      |
| Stage 1              | 785    | -      | -      |
| Stage 2              | 490    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1307 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

No Build 2025 AM  
4: Universe Blvd & Driveway 1

04/14/2022

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 237                                                                               | 0    | 0    | 649                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 237                                                                               | 0    | 0    | 649                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 258                                                                               | 0    | 0    | 705                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 963    | 258    | 0      |
| Stage 1              | 258    | -      | -      |
| Stage 2              | 705    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 284    | 781    | -      |
| Stage 1              | 785    | -      | -      |
| Stage 2              | 490    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 284    | 781    | -      |
| Mov Cap-2 Maneuver   | 284    | -      | -      |
| Stage 1              | 785    | -      | -      |
| Stage 2              | 490    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1307 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

No Build 2025 AM  
5: Universe Blvd & Driveway 2

04/14/2022

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 237                                                                               | 0    | 0    | 649                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 237                                                                               | 0    | 0    | 649                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 258                                                                               | 0    | 0    | 705                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 963    | 258    | 0      |
| Stage 1              | 258    | -      | -      |
| Stage 2              | 705    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 284    | 781    | -      |
| Stage 1              | 785    | -      | -      |
| Stage 2              | 490    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 284    | 781    | -      |
| Mov Cap-2 Maneuver   | 284    | -      | -      |
| Stage 1              | 785    | -      | -      |
| Stage 2              | 490    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1307 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 237                                                                               | 0    | 0    | 649                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 237                                                                               | 0    | 0    | 649                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 258                                                                               | 0    | 0    | 705                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 963    | 258    | 0      |
| Stage 1              | 258    | -      | -      |
| Stage 2              | 705    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 284    | 781    | -      |
| Stage 1              | 785    | -      | -      |
| Stage 2              | 490    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 284    | 781    | -      |
| Mov Cap-2 Maneuver   | 284    | -      | -      |
| Stage 1              | 785    | -      | -      |
| Stage 2              | 490    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1307 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

# Lanes, Volumes, Timings

## 7: Scenic Dr/Universe Blvd & Rainbow Blvd

04/14/2022

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 3                                                                                 | 487                                                                               | 16                                                                                | 11                                                                                | 386                                                                               | 190                                                                               | 59                                                                                  | 45                                                                                  | 52                                                                                  | 601                                                                                 | 31                                                                                  | 18                                                                                  |
| Future Volume (vph)        | 3                                                                                 | 487                                                                               | 16                                                                                | 11                                                                                | 386                                                                               | 190                                                                               | 59                                                                                  | 45                                                                                  | 52                                                                                  | 601                                                                                 | 31                                                                                  | 18                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.958                                                                             |                                                                                   |                                                                                     | 0.921                                                                               |                                                                                     |                                                                                     | 0.923                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3391                                                                              | 0                                                                                 | 1770                                                                                | 1716                                                                                | 0                                                                                   | 1770                                                                                | 1719                                                                                | 0                                                                                   |
| Flt Permitted              | 0.169                                                                             |                                                                                   |                                                                                   | 0.230                                                                             |                                                                                   |                                                                                   | 0.702                                                                               |                                                                                     |                                                                                     | 0.503                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 315                                                                               | 3514                                                                              | 0                                                                                 | 428                                                                               | 3391                                                                              | 0                                                                                 | 1308                                                                                | 1716                                                                                | 0                                                                                   | 937                                                                                 | 1719                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 58                                                                                |                                                                                   |                                                                                     | 50                                                                                  |                                                                                     |                                                                                     | 43                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 6                                                                                 | 624                                                                               | 32                                                                                | 22                                                                                | 576                                                                               | 221                                                                               | 120                                                                                 | 63                                                                                  | 71                                                                                  | 691                                                                                 | 41                                                                                  | 43                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 6                                                                                 | 656                                                                               | 0                                                                                 | 22                                                                                | 797                                                                               | 0                                                                                 | 120                                                                                 | 134                                                                                 | 0                                                                                   | 691                                                                                 | 84                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |



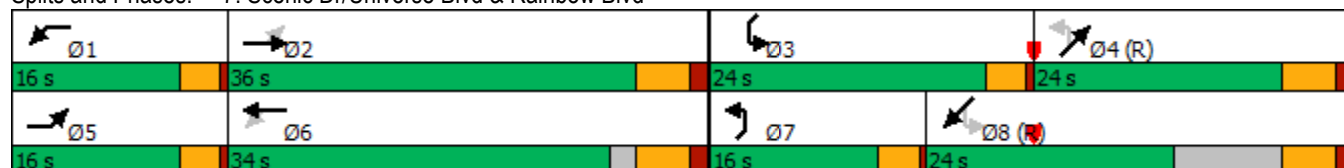
Lanes, Volumes, Timings  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

04/14/2022

|                                                                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                                                              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase                                                          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                  | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)                                                     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)                                                       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)                                                         | 16.0                                                                              | 36.0                                                                              |                                                                                   | 16.0                                                                              | 34.0                                                                              |                                                                                   | 16.0                                                                               | 24.0                                                                                |                                                                                     | 24.0                                                                                | 24.0                                                                                |                                                                                     |
| Total Split (%)                                                         | 16.0%                                                                             | 36.0%                                                                             |                                                                                   | 16.0%                                                                             | 34.0%                                                                             |                                                                                   | 16.0%                                                                              | 24.0%                                                                               |                                                                                     | 24.0%                                                                               | 24.0%                                                                               |                                                                                     |
| Maximum Green (s)                                                       | 12.5                                                                              | 30.5                                                                              |                                                                                   | 12.5                                                                              | 28.5                                                                              |                                                                                   | 12.5                                                                               | 18.5                                                                                |                                                                                     | 20.5                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)                                                         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)                                                        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)                                                    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)                                                     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                                                                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?                                                      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode                                                             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                               | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)                                                           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                    | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)                                                     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                    | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effct Green (s)                                                     | 31.5                                                                              | 27.6                                                                              |                                                                                   | 32.7                                                                              | 29.6                                                                              |                                                                                   | 27.7                                                                               | 18.5                                                                                |                                                                                     | 59.8                                                                                | 47.0                                                                                |                                                                                     |
| Actuated g/C Ratio                                                      | 0.32                                                                              | 0.28                                                                              |                                                                                   | 0.33                                                                              | 0.30                                                                              |                                                                                   | 0.28                                                                               | 0.18                                                                                |                                                                                     | 0.60                                                                                | 0.47                                                                                |                                                                                     |
| v/c Ratio                                                               | 0.04                                                                              | 0.67                                                                              |                                                                                   | 0.11                                                                              | 0.76                                                                              |                                                                                   | 0.30                                                                               | 0.37                                                                                |                                                                                     | 0.81                                                                                | 0.10                                                                                |                                                                                     |
| Control Delay                                                           | 18.0                                                                              | 35.2                                                                              |                                                                                   | 19.8                                                                              | 34.3                                                                              |                                                                                   | 17.5                                                                               | 25.8                                                                                |                                                                                     | 25.7                                                                                | 11.5                                                                                |                                                                                     |
| Queue Delay                                                             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay                                                             | 18.0                                                                              | 35.2                                                                              |                                                                                   | 19.8                                                                              | 34.3                                                                              |                                                                                   | 17.5                                                                               | 25.8                                                                                |                                                                                     | 25.7                                                                                | 11.5                                                                                |                                                                                     |
| LOS                                                                     | B                                                                                 | D                                                                                 |                                                                                   | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                  | C                                                                                   |                                                                                     | C                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay                                                          |                                                                                   | 35.1                                                                              |                                                                                   |                                                                                   | 34.0                                                                              |                                                                                   |                                                                                    | 21.9                                                                                |                                                                                     |                                                                                     | 24.2                                                                                |                                                                                     |
| Approach LOS                                                            |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)                                                  | 3                                                                                 | 191                                                                               |                                                                                   | 10                                                                                | 229                                                                               |                                                                                   | 28                                                                                 | 46                                                                                  |                                                                                     | 248                                                                                 | 13                                                                                  |                                                                                     |
| Queue Length 95th (ft)                                                  | 5                                                                                 | 192                                                                               |                                                                                   | 12                                                                                | 178                                                                               |                                                                                   | 39                                                                                 | 71                                                                                  |                                                                                     | #677                                                                                | 41                                                                                  |                                                                                     |
| Internal Link Dist (ft)                                                 |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                    | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)                                                    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)                                                     | 286                                                                               | 1102                                                                              |                                                                                   | 310                                                                               | 1145                                                                              |                                                                                   | 489                                                                                | 358                                                                                 |                                                                                     | 857                                                                                 | 831                                                                                 |                                                                                     |
| Starvation Cap Reductn                                                  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn                                                     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio                                                       | 0.02                                                                              | 0.60                                                                              |                                                                                   | 0.07                                                                              | 0.70                                                                              |                                                                                   | 0.25                                                                               | 0.37                                                                                |                                                                                     | 0.81                                                                                | 0.10                                                                                |                                                                                     |
| Intersection Summary                                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type:                                                              | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Cycle Length: 100                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length: 100                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Offset: 60 (60%), Referenced to phase 4:NETL and 8:SWTL, Start of Green |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Natural Cycle: 90                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type: Actuated-Coordinated                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Maximum v/c Ratio: 0.81                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Signal Delay: 30.0                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | Intersection LOS: C                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization 65.9%                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | ICU Level of Service C                                                            |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min) 15                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| # 95th percentile volume exceeds capacity, queue may be longer.         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



No Build 2025 AM  
8: Driveway 3 & Rosa Parks Rd

04/14/2022

Intersection

Int Delay, s/veh 0

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | 1622   | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1622   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1622 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

No Build 2025 AM  
9: Driveway 4 & Rosa Parks Rd

04/14/2022

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |



Intersection

Int Delay, s/veh 0

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 0      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 0      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1022   |
| Mov Cap-2 Maneuver   | -      | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (vph)       | 247                                                                               | 305                                                                               | 7                                                                                 | 170                                                                               | 462                                                                               | 366                                                                               | 8                                                                                   | 395                                                                                 | 119                                                                                 | 175                                                                                 | 341                                                                                 | 304                                                                                 |
| Future Volume (vph)        | 247                                                                               | 305                                                                               | 7                                                                                 | 170                                                                               | 462                                                                               | 366                                                                               | 8                                                                                   | 395                                                                                 | 119                                                                                 | 175                                                                                 | 341                                                                                 | 304                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.935                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1742                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.098                                                                             |                                                                                   |                                                                                   | 0.379                                                                             |                                                                                   |                                                                                   | 0.414                                                                               |                                                                                     |                                                                                     | 0.118                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 183                                                                               | 1863                                                                              | 1583                                                                              | 706                                                                               | 1742                                                                              | 0                                                                                 | 771                                                                                 | 1863                                                                                | 1583                                                                                | 220                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 89                                                                                |                                                                                   | 39                                                                                |                                                                                   |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 320                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.73                                                                              | 0.81                                                                              | 0.62                                                                              | 0.80                                                                              | 0.91                                                                              | 0.95                                                                              | 0.75                                                                                | 0.85                                                                                | 0.81                                                                                | 0.79                                                                                | 0.81                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 338                                                                               | 377                                                                               | 11                                                                                | 213                                                                               | 508                                                                               | 385                                                                               | 11                                                                                  | 465                                                                                 | 147                                                                                 | 222                                                                                 | 421                                                                                 | 320                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 338                                                                               | 377                                                                               | 11                                                                                | 213                                                                               | 893                                                                               | 0                                                                                 | 11                                                                                  | 465                                                                                 | 147                                                                                 | 222                                                                                 | 421                                                                                 | 320                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 15.0  | 45.0  | 45.0  | 15.0  | 45.0  |     | 15.0  | 35.0  | 35.0  | 15.0  | 35.0  | 35.0  |
| Total Split (%)         | 13.6% | 40.9% | 40.9% | 13.6% | 40.9% |     | 13.6% | 31.8% | 31.8% | 13.6% | 31.8% | 31.8% |
| Maximum Green (s)       | 11.5  | 39.5  | 39.5  | 11.5  | 39.5  |     | 11.5  | 30.0  | 30.0  | 11.5  | 30.0  | 30.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | Min   | Min   | None  | Min   |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 54.1  | 40.7  | 40.7  | 51.8  | 39.5  |     | 36.2  | 30.3  | 30.3  | 46.5  | 43.3  | 43.3  |
| Actuated g/C Ratio      | 0.49  | 0.37  | 0.37  | 0.47  | 0.36  |     | 0.33  | 0.28  | 0.28  | 0.42  | 0.39  | 0.39  |
| v/c Ratio               | 1.32  | 0.55  | 0.02  | 0.49  | 1.37  |     | 0.04  | 0.91  | 0.29  | 0.88  | 0.58  | 0.39  |
| Control Delay           | 196.4 | 31.4  | 0.0   | 19.2  | 207.3 |     | 19.2  | 62.0  | 14.3  | 59.2  | 30.8  | 4.3   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 196.4 | 31.4  | 0.0   | 19.2  | 207.3 |     | 19.2  | 62.0  | 14.3  | 59.2  | 30.8  | 4.3   |
| LOS                     | F     | C     | A     | B     | F     |     | B     | E     | B     | E     | C     | A     |
| Approach Delay          |       | 107.7 |       |       | 171.1 |     |       | 50.0  |       |       | 28.5  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | D     |       |       | C     |       |
| Queue Length 50th (ft)  | ~260  | 211   | 0     | 80    | ~824  |     | 4     | 319   | 28    | 102   | 223   | 0     |
| Queue Length 95th (ft)  | #313  | 269   | 0     | 110   | #1070 |     | 13    | #462  | 65    | #181  | 319   | 61    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 256   | 689   | 642   | 451   | 650   |     | 407   | 512   | 503   | 255   | 732   | 816   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 1.32  | 0.55  | 0.02  | 0.47  | 1.37  |     | 0.03  | 0.91  | 0.29  | 0.87  | 0.58  | 0.39  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 48 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.37

Intersection Signal Delay: 95.4

Intersection LOS: F

Intersection Capacity Utilization 106.3%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.3                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 3                                                                                 | 5                                                                                 | 2                                                                                 | 501                                                                               | 299                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 3                                                                                 | 5                                                                                 | 2                                                                                 | 501                                                                               | 299                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 6                                                                                 | 15                                                                                | 8                                                                                 | 545                                                                               | 322                                                                               | 0                                                                                 |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 883                                                                               | 322                                                                               | 322                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 322                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 561                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 316                                                                               | 719                                                                               | 1238                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 735                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 571                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 314                                                                               | 719                                                                               | 1238                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 314                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 731                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 571                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 12                                                                                | 0.1                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1238                                                                              | -                                                                                 | 314                                                                               | 719                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.006                                                                             | -                                                                                 | 0.019                                                                             | 0.021                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 7.9                                                                               | -                                                                                 | 16.7                                                                              | 10.1                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | 0.1                                                                               | 0.1                                                                               | -                                                                                 | -                                                                                 |



| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 502                                                                               | 0    | 0    | 304                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 502                                                                               | 0    | 0    | 304                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 546                                                                               | 0    | 0    | 330                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 876    | 546    | 0      |
| Stage 1              | 546    | -      | -      |
| Stage 2              | 330    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 319    | 538    | -      |
| Stage 1              | 580    | -      | -      |
| Stage 2              | 728    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 319    | 538    | -      |
| Mov Cap-2 Maneuver   | 319    | -      | -      |
| Stage 1              | 580    | -      | -      |
| Stage 2              | 728    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1023 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 502                                                                               | 0    | 0    | 304                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 502                                                                               | 0    | 0    | 304                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 546                                                                               | 0    | 0    | 330                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 876    | 546    | 0      |
| Stage 1              | 546    | -      | -      |
| Stage 2              | 330    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 319    | 538    | -      |
| Stage 1              | 580    | -      | -      |
| Stage 2              | 728    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 319    | 538    | -      |
| Mov Cap-2 Maneuver   | 319    | -      | -      |
| Stage 1              | 580    | -      | -      |
| Stage 2              | 728    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1023 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 502                                                                               | 0    | 0    | 304                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 502                                                                               | 0    | 0    | 304                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 546                                                                               | 0    | 0    | 330                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 876    | 546    | 0      |
| Stage 1              | 546    | -      | -      |
| Stage 2              | 330    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 319    | 538    | -      |
| Stage 1              | 580    | -      | -      |
| Stage 2              | 728    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 319    | 538    | -      |
| Mov Cap-2 Maneuver   | 319    | -      | -      |
| Stage 1              | 580    | -      | -      |
| Stage 2              | 728    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1023 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 502                                                                               | 0    | 0    | 304                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 502                                                                               | 0    | 0    | 304                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 546                                                                               | 0    | 0    | 330                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 876    | 546    | 0      |
| Stage 1              | 546    | -      | -      |
| Stage 2              | 330    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 319    | 538    | -      |
| Stage 1              | 580    | -      | -      |
| Stage 2              | 728    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 319    | 538    | -      |
| Mov Cap-2 Maneuver   | 319    | -      | -      |
| Stage 1              | 580    | -      | -      |
| Stage 2              | 728    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1023 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 3                                                                                 | 272                                                                               | 11                                                                                | 64                                                                                | 415                                                                               | 447                                                                               | 11                                                                                  | 53                                                                                  | 38                                                                                  | 251                                                                                 | 51                                                                                  | 3                                                                                   |
| Future Volume (vph)        | 3                                                                                 | 272                                                                               | 11                                                                                | 64                                                                                | 415                                                                               | 447                                                                               | 11                                                                                  | 53                                                                                  | 38                                                                                  | 251                                                                                 | 51                                                                                  | 3                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.994                                                                             |                                                                                   |                                                                                   | 0.921                                                                             |                                                                                   |                                                                                     | 0.940                                                                               |                                                                                     |                                                                                     | 0.989                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3518                                                                              | 0                                                                                 | 1770                                                                              | 3260                                                                              | 0                                                                                 | 1770                                                                                | 1751                                                                                | 0                                                                                   | 1770                                                                                | 1842                                                                                | 0                                                                                   |
| Flt Permitted              | 0.158                                                                             |                                                                                   |                                                                                   | 0.383                                                                             |                                                                                   |                                                                                   | 0.703                                                                               |                                                                                     |                                                                                     | 0.601                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 294                                                                               | 3518                                                                              | 0                                                                                 | 713                                                                               | 3260                                                                              | 0                                                                                 | 1310                                                                                | 1751                                                                                | 0                                                                                   | 1120                                                                                | 1842                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 286                                                                               |                                                                                   |                                                                                     | 34                                                                                  |                                                                                     |                                                                                     | 5                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 6                                                                                 | 418                                                                               | 18                                                                                | 75                                                                                | 461                                                                               | 508                                                                               | 18                                                                                  | 68                                                                                  | 45                                                                                  | 299                                                                                 | 77                                                                                  | 6                                                                                   |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 6                                                                                 | 436                                                                               | 0                                                                                 | 75                                                                                | 969                                                                               | 0                                                                                 | 18                                                                                  | 113                                                                                 | 0                                                                                   | 299                                                                                 | 83                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |



| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 27.3% | 27.3% |     |
| Maximum Green (s)       | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 30.0  | 24.5  |     | 34.8  | 31.2  |     | 34.5  | 28.0  |     | 46.2  | 40.8  |     |
| Actuated g/C Ratio      | 0.34  | 0.28  |     | 0.40  | 0.35  |     | 0.39  | 0.32  |     | 0.52  | 0.46  |     |
| v/c Ratio               | 0.04  | 0.44  |     | 0.21  | 0.72  |     | 0.03  | 0.19  |     | 0.44  | 0.10  |     |
| Control Delay           | 16.3  | 28.5  |     | 18.3  | 21.3  |     | 11.8  | 18.1  |     | 14.4  | 14.5  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 16.3  | 28.5  |     | 18.3  | 21.3  |     | 11.8  | 18.1  |     | 14.4  | 14.5  |     |
| LOS                     | B     | C     |     | B     | C     |     | B     | B     |     | B     | B     |     |
| Approach Delay          |       | 28.3  |     |       | 21.0  |     |       | 17.2  |     |       | 14.4  |     |
| Approach LOS            |       | C     |     |       | C     |     |       | B     |     |       | B     |     |
| Queue Length 50th (ft)  | 2     | 108   |     | 27    | 171   |     | 4     | 30    |     | 85    | 20    |     |
| Queue Length 95th (ft)  | 5     | 104   |     | 48    | 269   |     | 10    | 66    |     | 136   | 40    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 325   | 983   |     | 432   | 1338  |     | 695   | 580   |     | 739   | 856   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.02  | 0.44  |     | 0.17  | 0.72  |     | 0.03  | 0.19  |     | 0.40  | 0.10  |     |

## Intersection Summary

Area Type: Other

Cycle Length: 88

Actuated Cycle Length: 88

Offset: 48 (55%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 21.1

Intersection LOS: C

Intersection Capacity Utilization 62.2%

ICU Level of Service B

Analysis Period (min) 15



Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd

|                                                                                                                                                                           |                                                                                                                                                                           |                                                                                                                                                                            |                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  Ø1<br> |  Ø2<br> |  Ø3<br> |  Ø4 (R)<br> |
|  Ø5<br> |  Ø6<br> |  Ø7<br>  |  Ø8 (R)<br>  |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  | A                                                                                 |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

Intersection

Int Delay, s/veh 0

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1622   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1622   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1622 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 0

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 0      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 0      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1022   |
| Mov Cap-2 Maneuver   | -      | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |

# **APPENDIX K**

## **Phase II 2025 - Build Synchro Reports**



|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 184                                                                               | 438                                                                               | 65                                                                                | 111                                                                               | 199                                                                               | 151                                                                               | 13                                                                                  | 229                                                                                 | 200                                                                                 | 317                                                                                 | 508                                                                                 | 276                                                                                 |
| Future Volume (vph)        | 184                                                                               | 438                                                                               | 65                                                                                | 111                                                                               | 199                                                                               | 151                                                                               | 13                                                                                  | 229                                                                                 | 200                                                                                 | 317                                                                                 | 508                                                                                 | 276                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.937                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1745                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.144                                                                             |                                                                                   |                                                                                   | 0.162                                                                             |                                                                                   |                                                                                   | 0.250                                                                               |                                                                                     |                                                                                     | 0.429                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 268                                                                               | 1863                                                                              | 1583                                                                              | 302                                                                               | 1745                                                                              | 0                                                                                 | 466                                                                                 | 1863                                                                                | 1583                                                                                | 799                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 124                                                                               |                                                                                   | 30                                                                                |                                                                                   |                                                                                     |                                                                                     | 164                                                                                 |                                                                                     |                                                                                     | 298                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                                | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 219                                                                               | 534                                                                               | 82                                                                                | 182                                                                               | 288                                                                               | 207                                                                               | 29                                                                                  | 290                                                                                 | 339                                                                                 | 364                                                                                 | 651                                                                                 | 314                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 219                                                                               | 534                                                                               | 82                                                                                | 182                                                                               | 495                                                                               | 0                                                                                 | 29                                                                                  | 290                                                                                 | 339                                                                                 | 364                                                                                 | 651                                                                                 | 314                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 17.0  | 32.0  | 32.0  | 13.0  | 29.0  |     | 13.0  | 45.0  | 45.0  | 19.0  | 51.0  | 51.0  |
| Total Split (%)         | 15.5% | 29.1% | 29.1% | 11.8% | 26.4% |     | 11.8% | 40.9% | 40.9% | 17.3% | 46.4% | 46.4% |
| Maximum Green (s)       | 13.5  | 26.5  | 26.5  | 9.5   | 23.5  |     | 9.5   | 40.0  | 40.0  | 15.5  | 46.0  | 46.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | None  | None  | None  | None  |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 41.7  | 27.7  | 27.7  | 36.0  | 24.7  |     | 47.5  | 41.1  | 41.1  | 60.5  | 53.7  | 53.7  |
| Actuated g/C Ratio      | 0.38  | 0.25  | 0.25  | 0.33  | 0.22  |     | 0.43  | 0.37  | 0.37  | 0.55  | 0.49  | 0.49  |
| v/c Ratio               | 0.81  | 1.14  | 0.17  | 0.82  | 1.20  |     | 0.11  | 0.42  | 0.49  | 0.64  | 0.72  | 0.34  |
| Control Delay           | 48.6  | 124.1 | 2.6   | 54.1  | 145.5 |     | 13.2  | 28.2  | 16.0  | 20.1  | 28.7  | 3.7   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 48.6  | 124.1 | 2.6   | 54.1  | 145.5 |     | 13.2  | 28.2  | 16.0  | 20.1  | 28.7  | 3.7   |
| LOS                     | D     | F     | A     | D     | F     |     | B     | C     | B     | C     | C     | A     |
| Approach Delay          |       | 92.3  |       |       | 120.9 |     |       | 21.3  |       |       | 20.4  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | C     |       |       | C     |       |
| Queue Length 50th (ft)  | 107   | ~444  | 0     | 87    | ~422  |     | 9     | 153   | 90    | 139   | 371   | 6     |
| Queue Length 95th (ft)  | #178  | #564  | 4     | 90    | #408  |     | 11    | 196   | 67    | 195   | 419   | 51    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 287   | 469   | 491   | 225   | 414   |     | 333   | 696   | 694   | 576   | 909   | 925   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 0.76  | 1.14  | 0.17  | 0.81  | 1.20  |     | 0.09  | 0.42  | 0.49  | 0.63  | 0.72  | 0.34  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 57.2

Intersection LOS: E

Intersection Capacity Utilization 76.2%

ICU Level of Service D

Analysis Period (min) 15

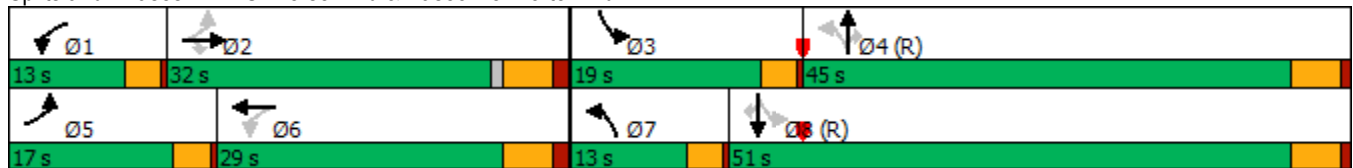
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 13                                                                                | 30                                                                                | 64                                                                                | 242                                                                               | 645                                                                               | 138                                                                               |
| Future Vol, veh/h        | 13                                                                                | 30                                                                                | 64                                                                                | 242                                                                               | 645                                                                               | 138                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 33                                                                                | 67                                                                                | 131                                                                               | 263                                                                               | 701                                                                               | 294                                                                               |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1226                                                                              | 701                                                                               | 995                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 701                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 525                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 197                                                                               | 439                                                                               | 695                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 492                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 593                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 160                                                                               | 439                                                                               | 695                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 160                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 400                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 593                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 20.9                                                                              | 3.8                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 695                                                                               | -                                                                                 | 160                                                                               | 439                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.188                                                                             | -                                                                                 | 0.208                                                                             | 0.152                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 11.4                                                                              | -                                                                                 | 33.3                                                                              | 14.7                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | B                                                                                 | -                                                                                 | D                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.7                                                                               | -                                                                                 | 0.8                                                                               | 0.5                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.4                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 6                                                                                 | 24       | 281                                                                               | 3      | 11    | 663                                                                               |
| Future Vol, veh/h        | 6                                                                                 | 24       | 281                                                                               | 3      | 11    | 663                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 7                                                                                 | 26       | 305                                                                               | 3      | 12    | 721                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1052                                                                              | 307      | 0                                                                                 | 0      | 308   | 0                                                                                 |
| Stage 1                  | 307                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 745                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 251                                                                               | 733      | -                                                                                 | -      | 1253  | -                                                                                 |
| Stage 1                  | 746                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 469                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 247                                                                               | 733      | -                                                                                 | -      | 1253  | -                                                                                 |
| Mov Cap-2 Maneuver       | 247                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 746                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 461                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 12.3                                                                              | 0        |                                                                                   | 0.1    |       |                                                                                   |
| HCM LOS                  | B                                                                                 |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 526                                                                               | 1253   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.062                                                                             | 0.01   | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 12.3                                                                              | 7.9    | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | B                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.2                                                                               | 0      | -     |                                                                                   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.3                                                                               |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 9                                                                                 | 13   | 271                                                                               | 3    | 4    | 665                                                                               |
| Future Vol, veh/h        | 9                                                                                 | 13   | 271                                                                               | 3    | 4    | 665                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 10                                                                                | 14   | 295                                                                               | 3    | 4    | 723                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 1028   | 297    | 0      | 0 | 298   |
| Stage 1              | 297    | -      | -      | - | -     |
| Stage 2              | 731    | -      | -      | - | -     |
| Critical Hdwy        | 6.42   | 6.22   | -      | - | 4.12  |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.518  | 3.318  | -      | - | 2.218 |
| Pot Cap-1 Maneuver   | 259    | 742    | -      | - | 1263  |
| Stage 1              | 754    | -      | -      | - | -     |
| Stage 2              | 476    | -      | -      | - | -     |
| Platoon blocked, %   |        |        | -      | - | -     |
| Mov Cap-1 Maneuver   | 258    | 742    | -      | - | 1263  |
| Mov Cap-2 Maneuver   | 258    | -      | -      | - | -     |
| Stage 1              | 754    | -      | -      | - | -     |
| Stage 2              | 474    | -      | -      | - | -     |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 14.1 | 0  | 0  |
| HCM LOS              | B    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 420   | 1263  |
| HCM Lane V/C Ratio    | -   | -        | 0.057 | 0.003 |
| HCM Control Delay (s) | -   | -        | 14.1  | 7.9   |
| HCM Lane LOS          | -   | -        | B     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.2   | 0     |



Intersection

Int Delay, s/veh 1

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 30                                                                                | 26   | 248                                                                               | 11   | 8    | 666                                                                               |
| Future Vol, veh/h        | 30                                                                                | 26   | 248                                                                               | 11   | 8    | 666                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 33                                                                                | 28   | 270                                                                               | 12   | 9    | 724                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1018   | 276    | 0      |
| Stage 1              | 276    | -      | -      |
| Stage 2              | 742    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 263    | 763    | -      |
| Stage 1              | 771    | -      | -      |
| Stage 2              | 471    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 260    | 763    | -      |
| Mov Cap-2 Maneuver   | 260    | -      | -      |
| Stage 1              | 771    | -      | -      |
| Stage 2              | 465    | -      | -      |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 16.5 | 0  | 0.1 |
| HCM LOS              | C    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 375   | 1280  |
| HCM Lane V/C Ratio    | -   | -        | 0.162 | 0.007 |
| HCM Control Delay (s) | -   | -        | 16.5  | 7.8   |
| HCM Lane LOS          | -   | -        | C     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.6   | 0     |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.1                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 4                                                                                 | 5        | 254                                                                               | 1      | 2     | 694                                                                               |
| Future Vol, veh/h        | 4                                                                                 | 5        | 254                                                                               | 1      | 2     | 694                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 4                                                                                 | 5        | 276                                                                               | 1      | 2     | 754                                                                               |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1035                                                                              | 277      | 0                                                                                 | 0      | 277   | 0                                                                                 |
| Stage 1                  | 277                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 758                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 257                                                                               | 762      | -                                                                                 | -      | 1286  | -                                                                                 |
| Stage 1                  | 770                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 463                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 256                                                                               | 762      | -                                                                                 | -      | 1286  | -                                                                                 |
| Mov Cap-2 Maneuver       | 256                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 770                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 462                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 14.1                                                                              | 0        |                                                                                   | 0      |       |                                                                                   |
| HCM LOS                  | B                                                                                 |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 406                                                                               | 1286   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.024                                                                             | 0.002  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 14.1                                                                              | 7.8    | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | B                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.1                                                                               | 0      | -     |                                                                                   |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 5                                                                                 | 487                                                                               | 16                                                                                | 11                                                                                | 386                                                                               | 204                                                                               | 59                                                                                  | 47                                                                                  | 52                                                                                  | 646                                                                                 | 33                                                                                  | 20                                                                                  |
| Future Volume (vph)        | 5                                                                                 | 487                                                                               | 16                                                                                | 11                                                                                | 386                                                                               | 204                                                                               | 59                                                                                  | 47                                                                                  | 52                                                                                  | 646                                                                                 | 33                                                                                  | 20                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.956                                                                             |                                                                                   |                                                                                     | 0.922                                                                               |                                                                                     |                                                                                     | 0.922                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3383                                                                              | 0                                                                                 | 1770                                                                                | 1717                                                                                | 0                                                                                   | 1770                                                                                | 1717                                                                                | 0                                                                                   |
| Flt Permitted              | 0.163                                                                             |                                                                                   |                                                                                   | 0.233                                                                             |                                                                                   |                                                                                   | 0.697                                                                               |                                                                                     |                                                                                     | 0.498                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 304                                                                               | 3514                                                                              | 0                                                                                 | 434                                                                               | 3383                                                                              | 0                                                                                 | 1298                                                                                | 1717                                                                                | 0                                                                                   | 928                                                                                 | 1717                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 64                                                                                |                                                                                   |                                                                                     | 48                                                                                  |                                                                                     |                                                                                     | 48                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 10                                                                                | 624                                                                               | 32                                                                                | 22                                                                                | 576                                                                               | 237                                                                               | 120                                                                                 | 66                                                                                  | 71                                                                                  | 743                                                                                 | 44                                                                                  | 48                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 10                                                                                | 656                                                                               | 0                                                                                 | 22                                                                                | 813                                                                               | 0                                                                                 | 120                                                                                 | 137                                                                                 | 0                                                                                   | 743                                                                                 | 92                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |



| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 36.0  |     | 16.0  | 34.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 16.0% | 36.0% |     | 16.0% | 34.0% |     | 16.0% | 24.0% |     | 24.0% | 24.0% |     |
| Maximum Green (s)       | 12.5  | 30.5  |     | 12.5  | 28.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 32.0  | 28.1  |     | 33.1  | 29.9  |     | 27.7  | 18.5  |     | 59.3  | 46.6  |     |
| Actuated g/C Ratio      | 0.32  | 0.28  |     | 0.33  | 0.30  |     | 0.28  | 0.18  |     | 0.59  | 0.47  |     |
| v/c Ratio               | 0.06  | 0.66  |     | 0.11  | 0.77  |     | 0.30  | 0.38  |     | 0.88  | 0.11  |     |
| Control Delay           | 18.2  | 34.6  |     | 19.5  | 34.1  |     | 17.6  | 26.6  |     | 31.6  | 11.5  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 18.2  | 34.6  |     | 19.5  | 34.1  |     | 17.6  | 26.6  |     | 31.6  | 11.5  |     |
| LOS                     | B     | C     |     | B     | C     |     | B     | C     |     | C     | B     |     |
| Approach Delay          |       | 34.4  |     |       | 33.7  |     |       | 22.4  |     |       | 29.4  |     |
| Approach LOS            |       | C     |     |       | C     |     |       | C     |     |       | C     |     |
| Queue Length 50th (ft)  | 4     | 190   |     | 10    | 232   |     | 29    | 49    |     | 284   | 14    |     |
| Queue Length 95th (ft)  | 7     | 188   |     | 11    | 178   |     | 40    | 75    |     | #761  | 43    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 285   | 1109  |     | 313   | 1151  |     | 487   | 356   |     | 848   | 825   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.04  | 0.59  |     | 0.07  | 0.71  |     | 0.25  | 0.38  |     | 0.88  | 0.11  |     |

#### Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 60 (60%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 31.4

Intersection LOS: C

Intersection Capacity Utilization 68.8%

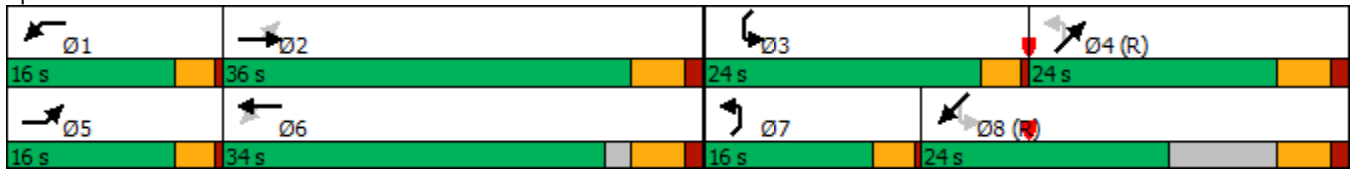
ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



Intersection

Int Delay, s/veh 0

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 14                                                                                | 0    | 0    | 30                                                                                | 0                                                                                 | 0    |
| Future Vol, veh/h        | 14                                                                                | 0    | 0    | 30                                                                                | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 15                                                                                | 0    | 0    | 33                                                                                | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 15     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | 1603   | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1603   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1603 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |



Intersection

Int Delay, s/veh 3

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 7                                                                                 | 7    | 0    | 15                                                                                | 15                                                                                | 0    |
| Future Vol, veh/h        | 7                                                                                 | 7    | 0    | 15                                                                                | 15                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 8                                                                                 | 8    | 0    | 16                                                                                | 16                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 16     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1602   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1602   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.7 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 987   | -   | -   | 1602 | -   |
| HCM Lane V/C Ratio    | 0.017 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.7   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 5.6

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 7    | 0    | 0                                                                                 | 15                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 7    | 0    | 0                                                                                 | 15                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 8    | 0    | 0                                                                                 | 16                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 8      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1612   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1612   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.6 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 1017  | -   | -   | 1612 | -   |
| HCM Lane V/C Ratio    | 0.016 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.6   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 7.6

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 9    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 9    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 10   |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 1      | 0      | 0 1 1         |
| Stage 1              | -      | -      | - 1 -         |
| Stage 2              | -      | -      | - 0 -         |
| Critical Hdwy        | 4.12   | -      | - 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | - 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | - 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | - 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1622   | -      | - 1022 1084   |
| Stage 1              | -      | -      | - 1022 -      |
| Stage 2              | -      | -      | - - -         |
| Platoon blocked, %   |        | -      | - -           |
| Mov Cap-1 Maneuver   | 1622   | -      | - 1022 1084   |
| Mov Cap-2 Maneuver   | -      | -      | - 1022 -      |
| Stage 1              | -      | -      | - 1022 -      |
| Stage 2              | -      | -      | - - -         |

| Approach             | EB | WB | SB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.4 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | 1084  |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | 0.009 |
| HCM Control Delay (s) | 0    | -   | -   | -   | 8.4   |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | 0     |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 247                                                                               | 305                                                                               | 9                                                                                 | 202                                                                               | 462                                                                               | 366                                                                               | 10                                                                                  | 398                                                                                 | 143                                                                                 | 175                                                                                 | 345                                                                                 | 304                                                                                 |
| Future Volume (vph)        | 247                                                                               | 305                                                                               | 9                                                                                 | 202                                                                               | 462                                                                               | 366                                                                               | 10                                                                                  | 398                                                                                 | 143                                                                                 | 175                                                                                 | 345                                                                                 | 304                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.935                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1742                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.100                                                                             |                                                                                   |                                                                                   | 0.370                                                                             |                                                                                   |                                                                                   | 0.384                                                                               |                                                                                     |                                                                                     | 0.118                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 186                                                                               | 1863                                                                              | 1583                                                                              | 689                                                                               | 1742                                                                              | 0                                                                                 | 715                                                                                 | 1863                                                                                | 1583                                                                                | 220                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 89                                                                                |                                                                                   | 39                                                                                |                                                                                   |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 320                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.73                                                                              | 0.81                                                                              | 0.62                                                                              | 0.80                                                                              | 0.91                                                                              | 0.95                                                                              | 0.75                                                                                | 0.85                                                                                | 0.81                                                                                | 0.79                                                                                | 0.81                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 338                                                                               | 377                                                                               | 15                                                                                | 253                                                                               | 508                                                                               | 385                                                                               | 13                                                                                  | 468                                                                                 | 177                                                                                 | 222                                                                                 | 426                                                                                 | 320                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 338                                                                               | 377                                                                               | 15                                                                                | 253                                                                               | 893                                                                               | 0                                                                                 | 13                                                                                  | 468                                                                                 | 177                                                                                 | 222                                                                                 | 426                                                                                 | 320                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 15.0  | 45.0  | 45.0  | 15.0  | 45.0  |     | 15.0  | 35.0  | 35.0  | 15.0  | 35.0  | 35.0  |
| Total Split (%)         | 13.6% | 40.9% | 40.9% | 13.6% | 40.9% |     | 13.6% | 31.8% | 31.8% | 13.6% | 31.8% | 31.8% |
| Maximum Green (s)       | 11.5  | 39.5  | 39.5  | 11.5  | 39.5  |     | 11.5  | 30.0  | 30.0  | 11.5  | 30.0  | 30.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | Min   | Min   | None  | Min   |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 53.7  | 40.2  | 40.2  | 52.3  | 39.5  |     | 36.3  | 30.3  | 30.3  | 46.5  | 41.6  | 41.6  |
| Actuated g/C Ratio      | 0.49  | 0.37  | 0.37  | 0.48  | 0.36  |     | 0.33  | 0.28  | 0.28  | 0.42  | 0.38  | 0.38  |
| v/c Ratio               | 1.32  | 0.55  | 0.02  | 0.58  | 1.37  |     | 0.05  | 0.91  | 0.35  | 0.88  | 0.61  | 0.40  |
| Control Delay           | 195.0 | 31.8  | 0.1   | 21.6  | 207.3 |     | 19.4  | 62.9  | 17.4  | 59.2  | 33.1  | 4.6   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 195.0 | 31.8  | 0.1   | 21.6  | 207.3 |     | 19.4  | 62.9  | 17.4  | 59.2  | 33.1  | 4.6   |
| LOS                     | F     | C     | A     | C     | F     |     | B     | E     | B     | E     | C     | A     |
| Approach Delay          |       | 106.7 |       |       | 166.3 |     |       | 49.8  |       |       | 29.7  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | D     |       |       | C     |       |
| Queue Length 50th (ft)  | ~259  | 212   | 0     | 97    | ~824  |     | 5     | 321   | 45    | 102   | 226   | 0     |
| Queue Length 95th (ft)  | #311  | 269   | 0     | 130   | #1070 |     | 14    | #467  | 87    | #181  | 324   | 61    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 256   | 680   | 635   | 444   | 650   |     | 391   | 512   | 503   | 255   | 704   | 797   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 1.32  | 0.55  | 0.02  | 0.57  | 1.37  |     | 0.03  | 0.91  | 0.35  | 0.87  | 0.61  | 0.40  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 48 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.37

Intersection Signal Delay: 94.2

Intersection LOS: F

Intersection Capacity Utilization 106.4%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.6                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 3                                                                                 | 9                                                                                 | 5                                                                                 | 538                                                                               | 349                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 3                                                                                 | 9                                                                                 | 5                                                                                 | 538                                                                               | 349                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 6                                                                                 | 27                                                                                | 20                                                                                | 585                                                                               | 375                                                                               | 0                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1000                                                                              | 375                                                                               | 375                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 375                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 625                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 270                                                                               | 671                                                                               | 1183                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 695                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 534                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 265                                                                               | 671                                                                               | 1183                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 265                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 683                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 534                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 12.1                                                                              | 0.3                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1183                                                                              | -                                                                                 | 265                                                                               | 671                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.017                                                                             | -                                                                                 | 0.023                                                                             | 0.041                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 8.1                                                                               | -                                                                                 | 18.9                                                                              | 10.6                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.1                                                                               | -                                                                                 | 0.1                                                                               | 0.1                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.5                                                                               |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 4                                                                                 | 17   | 525                                                                               | 6    | 22   | 336                                                                               |
| Future Vol, veh/h        | 4                                                                                 | 17   | 525                                                                               | 6    | 22   | 336                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 4                                                                                 | 18   | 571                                                                               | 7    | 24   | 365                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 988    | 575    | 0      |
| Stage 1              | 575    | -      | -      |
| Stage 2              | 413    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 274    | 518    | -      |
| Stage 1              | 563    | -      | -      |
| Stage 2              | 668    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 266    | 518    | -      |
| Mov Cap-2 Maneuver   | 266    | -      | -      |
| Stage 1              | 563    | -      | -      |
| Stage 2              | 648    | -      | -      |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 13.7 | 0  | 0.5 |
| HCM LOS              | B    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 439   | 996   |
| HCM Lane V/C Ratio    | -   | -        | 0.052 | 0.024 |
| HCM Control Delay (s) | -   | -        | 13.7  | 8.7   |
| HCM Lane LOS          | -   | -        | B     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.2   | 0.1   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.3                                                                               |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 5                                                                                 | 6    | 525                                                                               | 6    | 9    | 331                                                                               |
| Future Vol, veh/h        | 5                                                                                 | 6    | 525                                                                               | 6    | 9    | 331                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 5                                                                                 | 7    | 571                                                                               | 7    | 10   | 360                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 955    | 575    | 0      |
| Stage 1              | 575    | -      | -      |
| Stage 2              | 380    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 287    | 518    | -      |
| Stage 1              | 563    | -      | -      |
| Stage 2              | 691    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 283    | 518    | -      |
| Mov Cap-2 Maneuver   | 283    | -      | -      |
| Stage 1              | 563    | -      | -      |
| Stage 2              | 682    | -      | -      |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 14.9 | 0  | 0.2 |
| HCM LOS              | B    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT  |
|-----------------------|-----|----------|-------|------|
| Capacity (veh/h)      | -   | -        | 376   | 996  |
| HCM Lane V/C Ratio    | -   | -        | 0.032 | 0.01 |
| HCM Control Delay (s) | -   | -        | 14.9  | 8.7  |
| HCM Lane LOS          | -   | -        | B     | A    |
| HCM 95th %tile Q(veh) | -   | -        | 0.1   | 0    |

| Intersection             |                                                                                   |        |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.8                                                                               |        |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR    | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |        |  |        |       |  |
| Traffic Vol, veh/h       | 19                                                                                | 14     | 484                                                                               | 26     | 19    | 296                                                                               |
| Future Vol, veh/h        | 19                                                                                | 14     | 484                                                                               | 26     | 19    | 296                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop   | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None   | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -      | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -      | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -      | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92     | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 21                                                                                | 15     | 526                                                                               | 28     | 21    | 322                                                                               |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1 |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 904                                                                               | 540    | 0                                                                                 | 0      | 554   | 0                                                                                 |
| Stage 1                  | 540                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 364                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22   | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -      | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -      | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318  | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 307                                                                               | 542    | -                                                                                 | -      | 1016  | -                                                                                 |
| Stage 1                  | 584                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 703                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |        | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 299                                                                               | 542    | -                                                                                 | -      | 1016  | -                                                                                 |
| Mov Cap-2 Maneuver       | 299                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 584                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 685                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB     |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 15.8                                                                              | 0      |                                                                                   | 0.5    |       |                                                                                   |
| HCM LOS                  | C                                                                                 |        |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    |                                                                                   | NBT    | NBRWBLn1                                                                          | SBL    | SBT   |                                                                                   |
| Capacity (veh/h)         |                                                                                   | -      | -                                                                                 | 369    | 1016  | -                                                                                 |
| HCM Lane V/C Ratio       |                                                                                   | -      | -                                                                                 | 0.097  | 0.02  | -                                                                                 |
| HCM Control Delay (s)    |                                                                                   | -      | -                                                                                 | 15.8   | 8.6   | 0                                                                                 |
| HCM Lane LOS             |                                                                                   | -      | -                                                                                 | C      | A     | A                                                                                 |
| HCM 95th %tile Q(veh)    |                                                                                   | -      | -                                                                                 | 0.3    | 0.1   | -                                                                                 |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.1                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 1                                                                                 | 3        | 540                                                                               | 3      | 4     | 332                                                                               |
| Future Vol, veh/h        | 1                                                                                 | 3        | 540                                                                               | 3      | 4     | 332                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 1                                                                                 | 3        | 587                                                                               | 3      | 4     | 361                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 958                                                                               | 589      | 0                                                                                 | 0      | 590   | 0                                                                                 |
| Stage 1                  | 589                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 369                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 285                                                                               | 508      | -                                                                                 | -      | 985   | -                                                                                 |
| Stage 1                  | 554                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 699                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 284                                                                               | 508      | -                                                                                 | -      | 985   | -                                                                                 |
| Mov Cap-2 Maneuver       | 284                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 554                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 696                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 13.6                                                                              | 0        |                                                                                   | 0.1    |       |                                                                                   |
| HCM LOS                  | B                                                                                 |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 424                                                                               | 985    | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.01                                                                              | 0.004  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 13.6                                                                              | 8.7    | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | B                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0                                                                                 | 0      | -     |                                                                                   |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 5                                                                                 | 272                                                                               | 11                                                                                | 64                                                                                | 415                                                                               | 438                                                                               | 11                                                                                  | 56                                                                                  | 38                                                                                  | 276                                                                                 | 53                                                                                  | 5                                                                                   |
| Future Volume (vph)        | 5                                                                                 | 272                                                                               | 11                                                                                | 64                                                                                | 415                                                                               | 438                                                                               | 11                                                                                  | 56                                                                                  | 38                                                                                  | 276                                                                                 | 53                                                                                  | 5                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.994                                                                             |                                                                                   |                                                                                   | 0.922                                                                             |                                                                                   |                                                                                     | 0.942                                                                               |                                                                                     |                                                                                     | 0.983                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3518                                                                              | 0                                                                                 | 1770                                                                              | 3263                                                                              | 0                                                                                 | 1770                                                                                | 1755                                                                                | 0                                                                                   | 1770                                                                                | 1831                                                                                | 0                                                                                   |
| Flt Permitted              | 0.157                                                                             |                                                                                   |                                                                                   | 0.380                                                                             |                                                                                   |                                                                                   | 0.699                                                                               |                                                                                     |                                                                                     | 0.597                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 292                                                                               | 3518                                                                              | 0                                                                                 | 708                                                                               | 3263                                                                              | 0                                                                                 | 1302                                                                                | 1755                                                                                | 0                                                                                   | 1112                                                                                | 1831                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 280                                                                               |                                                                                   |                                                                                     | 32                                                                                  |                                                                                     |                                                                                     | 7                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 10                                                                                | 418                                                                               | 18                                                                                | 75                                                                                | 461                                                                               | 498                                                                               | 18                                                                                  | 72                                                                                  | 45                                                                                  | 329                                                                                 | 80                                                                                  | 10                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 10                                                                                | 436                                                                               | 0                                                                                 | 75                                                                                | 959                                                                               | 0                                                                                 | 18                                                                                  | 117                                                                                 | 0                                                                                   | 329                                                                                 | 90                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |





| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 27.3% | 27.3% |     |
| Maximum Green (s)       | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 29.7  | 24.0  |     | 34.3  | 30.6  |     | 34.0  | 27.5  |     | 46.7  | 41.3  |     |
| Actuated g/C Ratio      | 0.34  | 0.27  |     | 0.39  | 0.35  |     | 0.39  | 0.31  |     | 0.53  | 0.47  |     |
| v/c Ratio               | 0.06  | 0.45  |     | 0.21  | 0.73  |     | 0.03  | 0.21  |     | 0.48  | 0.10  |     |
| Control Delay           | 17.0  | 28.9  |     | 18.5  | 21.8  |     | 11.9  | 19.2  |     | 14.7  | 14.1  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 17.0  | 28.9  |     | 18.5  | 21.8  |     | 11.9  | 19.2  |     | 14.7  | 14.1  |     |
| LOS                     | B     | C     |     | B     | C     |     | B     | B     |     | B     | B     |     |
| Approach Delay          |       | 28.6  |     |       | 21.5  |     |       | 18.3  |     |       | 14.6  |     |
| Approach LOS            |       | C     |     |       | C     |     |       | B     |     |       | B     |     |
| Queue Length 50th (ft)  | 4     | 109   |     | 27    | 171   |     | 4     | 32    |     | 95    | 22    |     |
| Queue Length 95th (ft)  | 7     | 104   |     | 48    | 269   |     | 10    | 71    |     | 151   | 42    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 323   | 963   |     | 426   | 1316  |     | 686   | 570   |     | 743   | 863   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.03  | 0.45  |     | 0.18  | 0.73  |     | 0.03  | 0.21  |     | 0.44  | 0.10  |     |

#### Intersection Summary

Area Type: Other

Cycle Length: 88

Actuated Cycle Length: 88

Offset: 48 (55%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 21.4

Intersection LOS: C

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Scenic Dr/Universe Blvd &amp; Rainbow Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 16 s                                                                                 | 24 s                                                                                 | 24 s                                                                                 | 24 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 16 s                                                                                 | 24 s                                                                                 | 16 s                                                                                 | 24 s                                                                                       |

Intersection

Int Delay, s/veh 0

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 28                                                                                | 0    | 0    | 21                                                                                | 0                                                                                 | 0    |
| Future Vol, veh/h        | 28                                                                                | 0    | 0    | 21                                                                                | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 30                                                                                | 0    | 0    | 23                                                                                | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 30     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | 1583   | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1583   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1583 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 2

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 14                                                                                | 14   | 0    | 10                                                                                | 11                                                                                | 0    |
| Future Vol, veh/h        | 14                                                                                | 14   | 0    | 10                                                                                | 11                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 15                                                                                | 15   | 0    | 11                                                                                | 12                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 30     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1583   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1583   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.7 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 979   | -   | -   | 1583 | -   |
| HCM Lane V/C Ratio    | 0.012 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.7   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 3.4

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 14   | 0    | 0                                                                                 | 10                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 14   | 0    | 0                                                                                 | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 15   | 0    | 0                                                                                 | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 15     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1603   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1603   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.6 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 1011  | -   | -   | 1603 | -   |
| HCM Lane V/C Ratio    | 0.011 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.6   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 7

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 7    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 4    |
| Future Vol, veh/h        | 7    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 4    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 8    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 4    |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 1      | 0      | 0 17 1        |
| Stage 1              | -      | -      | - 1 -         |
| Stage 2              | -      | -      | - 16 -        |
| Critical Hdwy        | 4.12   | -      | - 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | - 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | - 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | - 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1622   | -      | - 1001 1084   |
| Stage 1              | -      | -      | - 1022 -      |
| Stage 2              | -      | -      | - 1007 -      |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1622   | -      | - 996 1084    |
| Mov Cap-2 Maneuver   | -      | -      | - 996 -       |
| Stage 1              | -      | -      | - 1017 -      |
| Stage 2              | -      | -      | - 1007 -      |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 7.2 | 0  | 8.3 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622  | -   | -   | -   | 1084  |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | -   | 0.004 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.3   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |



# **APPENDIX L**

## **Phase III 2027 - No Build Synchro Reports**

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 193                                                                               | 458                                                                               | 67                                                                                | 101                                                                               | 208                                                                               | 159                                                                               | 12                                                                                  | 237                                                                                 | 165                                                                                 | 334                                                                                 | 533                                                                                 | 290                                                                                 |
| Future Volume (vph)        | 193                                                                               | 458                                                                               | 67                                                                                | 101                                                                               | 208                                                                               | 159                                                                               | 12                                                                                  | 237                                                                                 | 165                                                                                 | 334                                                                                 | 533                                                                                 | 290                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.937                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1745                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.143                                                                             |                                                                                   |                                                                                   | 0.164                                                                             |                                                                                   |                                                                                   | 0.220                                                                               |                                                                                     |                                                                                     | 0.416                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 266                                                                               | 1863                                                                              | 1583                                                                              | 305                                                                               | 1745                                                                              | 0                                                                                 | 410                                                                                 | 1863                                                                                | 1583                                                                                | 775                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 124                                                                               |                                                                                   | 30                                                                                |                                                                                   |                                                                                     |                                                                                     | 164                                                                                 |                                                                                     |                                                                                     | 299                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                                | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 230                                                                               | 559                                                                               | 85                                                                                | 166                                                                               | 301                                                                               | 218                                                                               | 27                                                                                  | 300                                                                                 | 280                                                                                 | 384                                                                                 | 683                                                                                 | 330                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 230                                                                               | 559                                                                               | 85                                                                                | 166                                                                               | 519                                                                               | 0                                                                                 | 27                                                                                  | 300                                                                                 | 280                                                                                 | 384                                                                                 | 683                                                                                 | 330                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |

No Build 2027 AM  
1: Universe Blvd & Paseo Del Norte Blvd

Lanes, Volumes, Timings  
04/14/2022

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                  | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   | 8                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 20.0                                                                              | 20.0                                                                              | 3.0                                                                               | 20.0                                                                              |                                                                                   | 3.0                                                                                | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                |
| Minimum Split (s)       | 9.5                                                                               | 34.5                                                                              | 34.5                                                                              | 9.5                                                                               | 25.5                                                                              |                                                                                   | 9.5                                                                                | 23.0                                                                                | 23.0                                                                                | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                |
| Total Split (s)         | 17.0                                                                              | 32.0                                                                              | 32.0                                                                              | 13.0                                                                              | 29.0                                                                              |                                                                                   | 13.0                                                                               | 45.0                                                                                | 45.0                                                                                | 19.0                                                                                | 51.0                                                                                | 51.0                                                                                |
| Total Split (%)         | 15.5%                                                                             | 29.1%                                                                             | 29.1%                                                                             | 11.8%                                                                             | 26.4%                                                                             |                                                                                   | 11.8%                                                                              | 40.9%                                                                               | 40.9%                                                                               | 17.3%                                                                               | 46.4%                                                                               | 46.4%                                                                               |
| Maximum Green (s)       | 13.5                                                                              | 26.5                                                                              | 26.5                                                                              | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                | 40.0                                                                                | 40.0                                                                                | 15.5                                                                                | 46.0                                                                                | 46.0                                                                                |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                | 1.0                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                | 5.0                                                                                 | 5.0                                                                                 | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                | 2.0                                                                                 | 2.0                                                                                 | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              |                                                                                   | None                                                                               | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |
| Walk Time (s)           |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                    | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)     |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                   | 12.0                                                                              |                                                                                   |                                                                                    | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 9.0                                                                                 | 9.0                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |
| Act Effect Green (s)    | 42.2                                                                              | 27.9                                                                              | 27.9                                                                              | 35.5                                                                              | 24.4                                                                              |                                                                                   | 47.1                                                                               | 40.8                                                                                | 40.8                                                                                | 60.5                                                                                | 53.8                                                                                | 53.8                                                                                |
| Actuated g/C Ratio      | 0.38                                                                              | 0.25                                                                              | 0.25                                                                              | 0.32                                                                              | 0.22                                                                              |                                                                                   | 0.43                                                                               | 0.37                                                                                | 0.37                                                                                | 0.55                                                                                | 0.49                                                                                | 0.49                                                                                |
| v/c Ratio               | 0.84                                                                              | 1.18                                                                              | 0.17                                                                              | 0.76                                                                              | 1.27                                                                              |                                                                                   | 0.11                                                                               | 0.43                                                                                | 0.41                                                                                | 0.69                                                                                | 0.75                                                                                | 0.36                                                                                |
| Control Delay           | 51.9                                                                              | 140.0                                                                             | 2.9                                                                               | 47.0                                                                              | 172.5                                                                             |                                                                                   | 13.4                                                                               | 28.7                                                                                | 12.4                                                                                | 21.7                                                                                | 30.2                                                                                | 4.2                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 51.9                                                                              | 140.0                                                                             | 2.9                                                                               | 47.0                                                                              | 172.5                                                                             |                                                                                   | 13.4                                                                               | 28.7                                                                                | 12.4                                                                                | 21.7                                                                                | 30.2                                                                                | 4.2                                                                                 |
| LOS                     | D                                                                                 | F                                                                                 | A                                                                                 | D                                                                                 | F                                                                                 |                                                                                   | B                                                                                  | C                                                                                   | B                                                                                   | C                                                                                   | C                                                                                   | A                                                                                   |
| Approach Delay          |                                                                                   | 103.5                                                                             |                                                                                   |                                                                                   | 142.1                                                                             |                                                                                   |                                                                                    | 20.5                                                                                |                                                                                     |                                                                                     | 21.7                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 113                                                                               | ~480                                                                              | 0                                                                                 | 78                                                                                | ~458                                                                              |                                                                                   | 8                                                                                  | 159                                                                                 | 56                                                                                  | 148                                                                                 | 399                                                                                 | 12                                                                                  |
| Queue Length 95th (ft)  | #197                                                                              | #600                                                                              | 6                                                                                 | 83                                                                                | #438                                                                              |                                                                                   | 11                                                                                 | 203                                                                                 | 44                                                                                  | 207                                                                                 | 448                                                                                 | 59                                                                                  |
| Internal Link Dist (ft) |                                                                                   | 127                                                                               |                                                                                   |                                                                                   | 462                                                                               |                                                                                   |                                                                                    | 201                                                                                 |                                                                                     |                                                                                     | 642                                                                                 |                                                                                     |
| Turn Bay Length (ft)    |                                                                                   |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   |                                                                                   | 130                                                                                |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Base Capacity (vph)     | 287                                                                               | 472                                                                               | 494                                                                               | 226                                                                               | 410                                                                               |                                                                                   | 310                                                                                | 691                                                                                 | 691                                                                                 | 566                                                                                 | 910                                                                                 | 926                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.80                                                                              | 1.18                                                                              | 0.17                                                                              | 0.73                                                                              | 1.27                                                                              |                                                                                   | 0.09                                                                               | 0.43                                                                                | 0.41                                                                                | 0.68                                                                                | 0.75                                                                                | 0.36                                                                                |

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.27

Intersection Signal Delay: 64.7

Intersection LOS: E

Intersection Capacity Utilization 78.6%

ICU Level of Service D

Analysis Period (min) 15

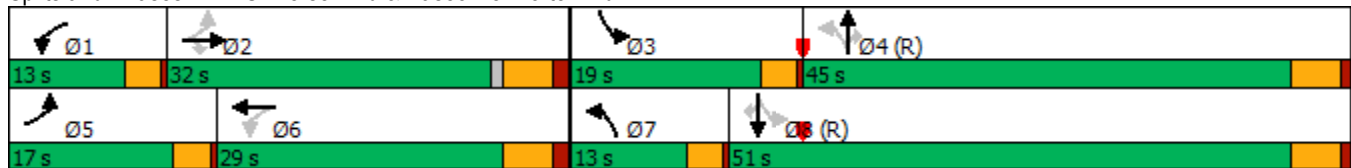
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 13                                                                                | 29                                                                                | 62                                                                                | 188                                                                               | 654                                                                               | 145                                                                               |
| Future Vol, veh/h        | 13                                                                                | 29                                                                                | 62                                                                                | 188                                                                               | 654                                                                               | 145                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 33                                                                                | 64                                                                                | 127                                                                               | 204                                                                               | 711                                                                               | 309                                                                               |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1169                                                                              | 711                                                                               | 1020                                                                              | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 711                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 458                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 213                                                                               | 433                                                                               | 680                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 487                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 637                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 173                                                                               | 433                                                                               | 680                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 173                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 396                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 637                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 20.2                                                                              | 4.4                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 680                                                                               | -                                                                                 | 173                                                                               | 433                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.186                                                                             | -                                                                                 | 0.193                                                                             | 0.149                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 11.5                                                                              | -                                                                                 | 30.7                                                                              | 14.8                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | B                                                                                 | -                                                                                 | D                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.7                                                                               | -                                                                                 | 0.7                                                                               | 0.5                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 250                                                                               | 0    | 0    | 683                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 250                                                                               | 0    | 0    | 683                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 272                                                                               | 0    | 0    | 742                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1014   | 272    | 0      |
| Stage 1              | 272    | -      | -      |
| Stage 2              | 742    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 264    | 767    | -      |
| Stage 1              | 774    | -      | -      |
| Stage 2              | 471    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 264    | 767    | -      |
| Mov Cap-2 Maneuver   | 264    | -      | -      |
| Stage 1              | 774    | -      | -      |
| Stage 2              | 471    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1291 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |



| Intersection             |                                                                                   |          |                                                                                   |      |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |          |                                                                                   |      |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR  | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |      |       |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0        | 250                                                                               | 0    | 0     | 683                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0        | 250                                                                               | 0    | 0     | 683                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0    | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -    | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -    | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -    | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92   | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2    | 2     | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0        | 272                                                                               | 0    | 0     | 742                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   | Major2                                                                            |      |       |                                                                                   |
| Conflicting Flow All     | 1014                                                                              | 272      | 0                                                                                 | 0    | 272   | 0                                                                                 |
| Stage 1                  | 272                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                  | 742                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -    | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -    | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -    | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -    | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 264                                                                               | 767      | -                                                                                 | -    | 1291  | -                                                                                 |
| Stage 1                  | 774                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                  | 471                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -    |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 264                                                                               | 767      | -                                                                                 | -    | 1291  | -                                                                                 |
| Mov Cap-2 Maneuver       | 264                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 1                  | 774                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                  | 471                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       | SB                                                                                |      |       |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 | 0        | 0                                                                                 |      |       |                                                                                   |
| HCM LOS                  | A                                                                                 |          |                                                                                   |      |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT  |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | -                                                                                 | 1291 | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | -                                                                                 | -    | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 0                                                                                 | 0    | -     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | A                                                                                 | A    | -     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | -                                                                                 | 0    | -     |                                                                                   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 250                                                                               | 0    | 0    | 683                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 250                                                                               | 0    | 0    | 683                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 272                                                                               | 0    | 0    | 742                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 1014   | 272    | 0      | 0 | 272   |
| Stage 1              | 272    | -      | -      | - | -     |
| Stage 2              | 742    | -      | -      | - | -     |
| Critical Hdwy        | 6.42   | 6.22   | -      | - | 4.12  |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.518  | 3.318  | -      | - | 2.218 |
| Pot Cap-1 Maneuver   | 264    | 767    | -      | - | 1291  |
| Stage 1              | 774    | -      | -      | - | -     |
| Stage 2              | 471    | -      | -      | - | -     |
| Platoon blocked, %   |        |        | -      | - | -     |
| Mov Cap-1 Maneuver   | 264    | 767    | -      | - | 1291  |
| Mov Cap-2 Maneuver   | 264    | -      | -      | - | -     |
| Stage 1              | 774    | -      | -      | - | -     |
| Stage 2              | 471    | -      | -      | - | -     |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1291 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 250                                                                               | 0    | 0    | 683                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 250                                                                               | 0    | 0    | 683                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 272                                                                               | 0    | 0    | 742                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1014   | 272    | 0      |
| Stage 1              | 272    | -      | -      |
| Stage 2              | 742    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 264    | 767    | -      |
| Stage 1              | 774    | -      | -      |
| Stage 2              | 471    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 264    | 767    | -      |
| Mov Cap-2 Maneuver   | 264    | -      | -      |
| Stage 1              | 774    | -      | -      |
| Stage 2              | 471    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1291 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 3                                                                                 | 511                                                                               | 17                                                                                | 12                                                                                | 407                                                                               | 200                                                                               | 62                                                                                  | 48                                                                                  | 55                                                                                  | 632                                                                                 | 33                                                                                  | 19                                                                                  |
| Future Volume (vph)        | 3                                                                                 | 511                                                                               | 17                                                                                | 12                                                                                | 407                                                                               | 200                                                                               | 62                                                                                  | 48                                                                                  | 55                                                                                  | 632                                                                                 | 33                                                                                  | 19                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.958                                                                             |                                                                                   |                                                                                     | 0.921                                                                               |                                                                                     |                                                                                     | 0.924                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3391                                                                              | 0                                                                                 | 1770                                                                                | 1716                                                                                | 0                                                                                   | 1770                                                                                | 1721                                                                                | 0                                                                                   |
| Flt Permitted              | 0.156                                                                             |                                                                                   |                                                                                   | 0.219                                                                             |                                                                                   |                                                                                   | 0.699                                                                               |                                                                                     |                                                                                     | 0.483                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 291                                                                               | 3514                                                                              | 0                                                                                 | 408                                                                               | 3391                                                                              | 0                                                                                 | 1302                                                                                | 1716                                                                                | 0                                                                                   | 900                                                                                 | 1721                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 58                                                                                |                                                                                   |                                                                                     | 49                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 6                                                                                 | 655                                                                               | 34                                                                                | 24                                                                                | 607                                                                               | 233                                                                               | 127                                                                                 | 68                                                                                  | 75                                                                                  | 726                                                                                 | 44                                                                                  | 45                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 6                                                                                 | 689                                                                               | 0                                                                                 | 24                                                                                | 840                                                                               | 0                                                                                 | 127                                                                                 | 143                                                                                 | 0                                                                                   | 726                                                                                 | 89                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

No Build 2027 AM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022



| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 36.0  |     | 16.0  | 34.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 16.0% | 36.0% |     | 16.0% | 34.0% |     | 16.0% | 24.0% |     | 24.0% | 24.0% |     |
| Maximum Green (s)       | 12.5  | 30.5  |     | 12.5  | 28.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 32.7  | 28.8  |     | 34.0  | 30.8  |     | 28.0  | 18.5  |     | 58.5  | 45.5  |     |
| Actuated g/C Ratio      | 0.33  | 0.29  |     | 0.34  | 0.31  |     | 0.28  | 0.18  |     | 0.58  | 0.46  |     |
| v/c Ratio               | 0.04  | 0.68  |     | 0.12  | 0.77  |     | 0.32  | 0.40  |     | 0.88  | 0.11  |     |
| Control Delay           | 17.3  | 34.4  |     | 19.2  | 34.0  |     | 17.9  | 27.1  |     | 32.5  | 12.3  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 17.3  | 34.4  |     | 19.2  | 34.0  |     | 17.9  | 27.1  |     | 32.5  | 12.3  |     |
| LOS                     | B     | C     |     | B     | C     |     | B     | C     |     | C     | B     |     |
| Approach Delay          |       | 34.3  |     |       | 33.6  |     |       | 22.8  |     |       | 30.3  |     |
| Approach LOS            |       | C     |     |       | C     |     |       | C     |     |       | C     |     |
| Queue Length 50th (ft)  | 3     | 200   |     | 11    | 243   |     | 31    | 52    |     | 279   | 14    |     |
| Queue Length 95th (ft)  | 5     | 196   |     | 12    | 184   |     | 42    | 78    |     | #753  | 44    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 285   | 1115  |     | 311   | 1163  |     | 488   | 357   |     | 827   | 808   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.02  | 0.62  |     | 0.08  | 0.72  |     | 0.26  | 0.40  |     | 0.88  | 0.11  |     |

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 60 (60%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 31.7

Intersection LOS: C

Intersection Capacity Utilization 68.5%

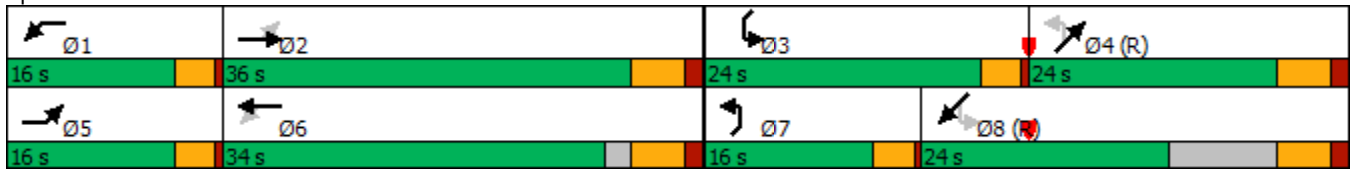
ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd





| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  | A                                                                                 |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  | A                                                                                 |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

Intersection

Int Delay, s/veh 0

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 0      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 0      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1022   |
| Mov Cap-2 Maneuver   | -      | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |

# Lanes, Volumes, Timings

## 1: Universe Blvd & Paseo Del Norte Blvd

04/14/2022

|                            |  |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------|------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group                 | EBL                                                                                | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations        |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Traffic Volume (vph)       | 259                                                                                | 319   | 7     | 176   | 481   | 384   | 8     | 416   | 123   | 183   | 359   | 319   |
| Future Volume (vph)        | 259                                                                                | 319   | 7     | 176   | 481   | 384   | 8     | 416   | 123   | 183   | 359   | 319   |
| Ideal Flow (vphpl)         | 1900                                                                               | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 0                                                                                  |       | 120   | 140   |       | 0     | 130   |       | 20    | 495   |       | 255   |
| Storage Lanes              | 1                                                                                  |       | 0     | 1     |       | 0     | 1     |       | 1     | 1     |       | 0     |
| Taper Length (ft)          | 25                                                                                 |       |       | 90    |       |       | 65    |       |       | 45    |       |       |
| Lane Util. Factor          | 1.00                                                                               | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Frt                        |                                                                                    |       | 0.850 |       | 0.935 |       |       |       | 0.850 |       |       | 0.850 |
| Flt Protected              | 0.950                                                                              |       |       | 0.950 |       |       | 0.950 |       |       | 0.950 |       |       |
| Satd. Flow (prot)          | 1770                                                                               | 1863  | 1583  | 1770  | 1742  | 0     | 1770  | 1863  | 1583  | 1770  | 1863  | 1583  |
| Flt Permitted              | 0.099                                                                              |       |       | 0.357 |       |       | 0.385 |       |       | 0.119 |       |       |
| Satd. Flow (perm)          | 184                                                                                | 1863  | 1583  | 665   | 1742  | 0     | 717   | 1863  | 1583  | 222   | 1863  | 1583  |
| Right Turn on Red          |                                                                                    |       | Yes   |       |       | Yes   |       |       | Yes   |       |       | Yes   |
| Satd. Flow (RTOR)          |                                                                                    |       | 89    |       | 39    |       |       |       | 94    |       |       | 336   |
| Link Speed (mph)           |                                                                                    | 30    |       |       | 35    |       |       | 35    |       |       | 35    |       |
| Link Distance (ft)         |                                                                                    | 207   |       |       | 542   |       |       | 281   |       |       | 722   |       |
| Travel Time (s)            |                                                                                    | 4.7   |       |       | 10.6  |       |       | 5.5   |       |       | 14.1  |       |
| Peak Hour Factor           | 0.73                                                                               | 0.81  | 0.62  | 0.80  | 0.91  | 0.95  | 0.75  | 0.85  | 0.81  | 0.79  | 0.81  | 0.95  |
| Adj. Flow (vph)            | 355                                                                                | 394   | 11    | 220   | 529   | 404   | 11    | 489   | 152   | 232   | 443   | 336   |
| Shared Lane Traffic (%)    |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 355                                                                                | 394   | 11    | 220   | 933   | 0     | 11    | 489   | 152   | 232   | 443   | 336   |
| Enter Blocked Intersection | No                                                                                 | No    | No    | No    | No    | No    | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left                                                                               | Left  | Right | Left  | Left  | Right | Left  | Left  | Right | Left  | Left  | Right |
| Median Width(ft)           |                                                                                    | 12    |       |       | 12    |       |       | 12    |       |       | 19    |       |
| Link Offset(ft)            |                                                                                    | 0     |       |       | 5     |       |       | 0     |       |       | -10   |       |
| Crosswalk Width(ft)        |                                                                                    | 40    |       |       | 16    |       |       | 16    |       |       | 30    |       |
| Two way Left Turn Lane     |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Headway Factor             | 1.00                                                                               | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 15                                                                                 |       | 9     | 15    |       | 9     | 15    |       | 9     | 15    |       | 9     |
| Number of Detectors        | 1                                                                                  | 2     | 1     | 1     | 2     |       | 1     | 2     | 1     | 1     | 2     | 1     |
| Detector Template          | Left                                                                               | Thru  | Right | Left  | Thru  |       | Left  | Thru  | Right | Left  | Thru  | Right |
| Leading Detector (ft)      | 20                                                                                 | 100   | 20    | 20    | 100   |       | 20    | 100   | 20    | 20    | 100   | 20    |
| Trailing Detector (ft)     | 0                                                                                  | 0     | 0     | 0     | 0     |       | 0     | 0     | 0     | 0     | 0     | 0     |
| Detector 1 Position(ft)    | 0                                                                                  | 0     | 0     | 0     | 0     |       | 0     | 0     | 0     | 0     | 0     | 0     |
| Detector 1 Size(ft)        | 20                                                                                 | 6     | 20    | 20    | 6     |       | 20    | 6     | 20    | 20    | 6     | 20    |
| Detector 1 Type            | Cl+Ex                                                                              | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |       | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel         |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Detector 1 Extend (s)      | 0.0                                                                                | 0.0   | 0.0   | 0.0   | 0.0   |       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Detector 1 Queue (s)       | 0.0                                                                                | 0.0   | 0.0   | 0.0   | 0.0   |       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Detector 1 Delay (s)       | 0.0                                                                                | 0.0   | 0.0   | 0.0   | 0.0   |       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Detector 2 Position(ft)    |                                                                                    | 94    |       |       | 94    |       |       | 94    |       |       | 94    |       |
| Detector 2 Size(ft)        |                                                                                    | 6     |       |       | 6     |       |       | 6     |       |       | 6     |       |
| Detector 2 Type            |                                                                                    | Cl+Ex |       |       | Cl+Ex |       |       | Cl+Ex |       |       | Cl+Ex |       |
| Detector 2 Channel         |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Detector 2 Extend (s)      |                                                                                    | 0.0   |       |       | 0.0   |       |       | 0.0   |       |       | 0.0   |       |
| Turn Type                  | pm+pt                                                                              | NA    | Perm  | pm+pt | NA    |       | pm+pt | NA    | Perm  | pm+pt | NA    | Perm  |
| Protected Phases           | 5                                                                                  | 2     |       | 1     | 6     |       | 7     | 4     |       | 3     | 8     |       |
| Permitted Phases           | 2                                                                                  |       | 2     | 6     |       |       | 4     |       | 4     | 8     |       | 8     |

# Lanes, Volumes, Timings

## 1: Universe Blvd & Paseo Del Norte Blvd

04/14/2022



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 15.0  | 45.0  | 45.0  | 15.0  | 45.0  |     | 15.0  | 35.0  | 35.0  | 15.0  | 35.0  | 35.0  |
| Total Split (%)         | 13.6% | 40.9% | 40.9% | 13.6% | 40.9% |     | 13.6% | 31.8% | 31.8% | 13.6% | 31.8% | 31.8% |
| Maximum Green (s)       | 11.5  | 39.5  | 39.5  | 11.5  | 39.5  |     | 11.5  | 30.0  | 30.0  | 11.5  | 30.0  | 30.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | Min   | Min   | None  | Min   |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 54.0  | 40.6  | 40.6  | 51.9  | 39.5  |     | 36.0  | 30.0  | 30.0  | 46.5  | 43.3  | 43.3  |
| Actuated g/C Ratio      | 0.49  | 0.37  | 0.37  | 0.47  | 0.36  |     | 0.33  | 0.27  | 0.27  | 0.42  | 0.39  | 0.39  |
| v/c Ratio               | 1.39  | 0.57  | 0.02  | 0.53  | 1.44  |     | 0.04  | 0.96  | 0.30  | 0.91  | 0.61  | 0.41  |
| Control Delay           | 223.0 | 32.1  | 0.0   | 20.0  | 233.4 |     | 19.4  | 71.9  | 14.9  | 64.0  | 31.6  | 4.3   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 223.0 | 32.1  | 0.0   | 20.0  | 233.4 |     | 19.4  | 71.9  | 14.9  | 64.0  | 31.6  | 4.3   |
| LOS                     | F     | C     | A     | C     | F     |     | B     | E     | B     | E     | C     | A     |
| Approach Delay          |       | 120.8 |       |       | 192.7 |     |       | 57.7  |       |       | 30.0  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | E     |       |       | C     |       |
| Queue Length 50th (ft)  | ~285  | 224   | 0     | 83    | ~884  |     | 4     | 341   | 31    | 110   | 238   | 0     |
| Queue Length 95th (ft)  | #335  | 282   | 0     | 114   | #1131 |     | 13    | #498  | 69    | #195  | 338   | 62    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 256   | 687   | 640   | 435   | 650   |     | 390   | 508   | 500   | 255   | 732   | 826   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 1.39  | 0.57  | 0.02  | 0.51  | 1.44  |     | 0.03  | 0.96  | 0.30  | 0.91  | 0.61  | 0.41  |

### Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 48 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.44

Intersection Signal Delay: 106.8

Intersection LOS: F

Intersection Capacity Utilization 110.6%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.



# Lanes, Volumes, Timings

## 1: Universe Blvd & Paseo Del Norte Blvd

04/14/2022

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |

# HCM 6th TWSC

## 2: Universe Blvd & School Driveway

04/14/2022

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.3                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 3                                                                                 | 5                                                                                 | 2                                                                                 | 526                                                                               | 315                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 3                                                                                 | 5                                                                                 | 2                                                                                 | 526                                                                               | 315                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 6                                                                                 | 15                                                                                | 8                                                                                 | 572                                                                               | 339                                                                               | 0                                                                                 |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 927                                                                               | 339                                                                               | 339                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 339                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 588                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 298                                                                               | 703                                                                               | 1220                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 722                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 555                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 296                                                                               | 703                                                                               | 1220                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 296                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 717                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 555                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 12.2                                                                              | 0.1                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1220                                                                              | -                                                                                 | 296                                                                               | 703                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.007                                                                             | -                                                                                 | 0.02                                                                              | 0.022                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 8                                                                                 | -                                                                                 | 17.4                                                                              | 10.2                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | 0.1                                                                               | 0.1                                                                               | -                                                                                 | -                                                                                 |

HCM 6th TWSC  
3: Universe Blvd & Rosa Parks Rd

04/14/2022

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0        | 528                                                                               | 0      | 0     | 319                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0        | 528                                                                               | 0      | 0     | 319                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0        | 574                                                                               | 0      | 0     | 347                                                                               |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 921                                                                               | 574      | 0                                                                                 | 0      | 574   | 0                                                                                 |
| Stage 1                  | 574                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 347                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 300                                                                               | 518      | -                                                                                 | -      | 999   | -                                                                                 |
| Stage 1                  | 563                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 716                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 300                                                                               | 518      | -                                                                                 | -      | 999   | -                                                                                 |
| Mov Cap-2 Maneuver       | 300                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 563                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 716                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 | 0        |                                                                                   | 0      |       |                                                                                   |
| HCM LOS                  | A                                                                                 |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | -                                                                                 | 999    | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | -                                                                                 | -      | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 0                                                                                 | 0      | -     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | A                                                                                 | A      | -     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | -                                                                                 | 0      | -     |                                                                                   |

HCM 6th TWSC  
4: Universe Blvd & Driveway 1

04/14/2022

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 528                                                                               | 0    | 0    | 319                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 528                                                                               | 0    | 0    | 319                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 574                                                                               | 0    | 0    | 347                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |   |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 921    | 574    | 0      | 0 | 574   | 0 |
| Stage 1              | 574    | -      | -      | - | -     | - |
| Stage 2              | 347    | -      | -      | - | -     | - |
| Critical Hdwy        | 6.42   | 6.22   | -      | - | 4.12  | - |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     | - |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     | - |
| Follow-up Hdwy       | 3.518  | 3.318  | -      | - | 2.218 | - |
| Pot Cap-1 Maneuver   | 300    | 518    | -      | - | 999   | - |
| Stage 1              | 563    | -      | -      | - | -     | - |
| Stage 2              | 716    | -      | -      | - | -     | - |
| Platoon blocked, %   |        |        | -      | - |       | - |
| Mov Cap-1 Maneuver   | 300    | 518    | -      | - | 999   | - |
| Mov Cap-2 Maneuver   | 300    | -      | -      | - | -     | - |
| Stage 1              | 563    | -      | -      | - | -     | - |
| Stage 2              | 716    | -      | -      | - | -     | - |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-----|-----|
| Capacity (veh/h)      | -   | -        | -   | 999 |
| HCM Lane V/C Ratio    | -   | -        | -   | -   |
| HCM Control Delay (s) | -   | -        | 0   | 0   |
| HCM Lane LOS          | -   | -        | A   | A   |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0   |

HCM 6th TWSC  
5: Universe Blvd & Driveway 2

04/14/2022

| Intersection             |                                                                                   |          |                                                                                   |      |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |          |                                                                                   |      |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR  | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |      |       |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0        | 528                                                                               | 0    | 0     | 319                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0        | 528                                                                               | 0    | 0     | 319                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0    | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -    | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -    | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -    | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92   | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2    | 2     | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0        | 574                                                                               | 0    | 0     | 347                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   | Major2                                                                            |      |       |                                                                                   |
| Conflicting Flow All     | 921                                                                               | 574      | 0                                                                                 | 0    | 574   | 0                                                                                 |
| Stage 1                  | 574                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                  | 347                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -    | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -    | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -    | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -    | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 300                                                                               | 518      | -                                                                                 | -    | 999   | -                                                                                 |
| Stage 1                  | 563                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                  | 716                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -    |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 300                                                                               | 518      | -                                                                                 | -    | 999   | -                                                                                 |
| Mov Cap-2 Maneuver       | 300                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 1                  | 563                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                  | 716                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       | SB                                                                                |      |       |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 | 0        | 0                                                                                 |      |       |                                                                                   |
| HCM LOS                  | A                                                                                 |          |                                                                                   |      |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT  |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | -                                                                                 | 999  | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | -                                                                                 | -    | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 0                                                                                 | 0    | -     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | A                                                                                 | A    | -     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | -                                                                                 | 0    | -     |                                                                                   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 528                                                                               | 0    | 0    | 319                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 528                                                                               | 0    | 0    | 319                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 574                                                                               | 0    | 0    | 347                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 921    | 574    | 0      |
| Stage 1              | 574    | -      | -      |
| Stage 2              | 347    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 300    | 518    | -      |
| Stage 1              | 563    | -      | -      |
| Stage 2              | 716    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 300    | 518    | -      |
| Mov Cap-2 Maneuver   | 300    | -      | -      |
| Stage 1              | 563    | -      | -      |
| Stage 2              | 716    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-----|-----|
| Capacity (veh/h)      | -   | -        | -   | 999 |
| HCM Lane V/C Ratio    | -   | -        | -   | -   |
| HCM Control Delay (s) | -   | -        | 0   | 0   |
| HCM Lane LOS          | -   | -        | A   | A   |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0   |



# Lanes, Volumes, Timings

## 7: Scenic Dr/Universe Blvd & Rainbow Blvd

04/14/2022

|                            |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 3                                                                                 | 285                                                                               | 12                                                                                | 68                                                                                | 435                                                                               | 470                                                                               | 12                                                                                  | 56                                                                                  | 40                                                                                  | 264                                                                                 | 54                                                                                  | 3                                                                                   |
| Future Volume (vph)        | 3                                                                                 | 285                                                                               | 12                                                                                | 68                                                                                | 435                                                                               | 470                                                                               | 12                                                                                  | 56                                                                                  | 40                                                                                  | 264                                                                                 | 54                                                                                  | 3                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.994                                                                             |                                                                                   |                                                                                   | 0.921                                                                             |                                                                                   |                                                                                     | 0.941                                                                               |                                                                                     |                                                                                     | 0.990                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3518                                                                              | 0                                                                                 | 1770                                                                              | 3260                                                                              | 0                                                                                 | 1770                                                                                | 1753                                                                                | 0                                                                                   | 1770                                                                                | 1844                                                                                | 0                                                                                   |
| Flt Permitted              | 0.151                                                                             |                                                                                   |                                                                                   | 0.377                                                                             |                                                                                   |                                                                                   | 0.700                                                                               |                                                                                     |                                                                                     | 0.589                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 281                                                                               | 3518                                                                              | 0                                                                                 | 702                                                                               | 3260                                                                              | 0                                                                                 | 1304                                                                                | 1753                                                                                | 0                                                                                   | 1097                                                                                | 1844                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 288                                                                               |                                                                                   |                                                                                     | 34                                                                                  |                                                                                     |                                                                                     | 4                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 6                                                                                 | 438                                                                               | 19                                                                                | 80                                                                                | 483                                                                               | 534                                                                               | 19                                                                                  | 72                                                                                  | 47                                                                                  | 314                                                                                 | 82                                                                                  | 6                                                                                   |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 6                                                                                 | 457                                                                               | 0                                                                                 | 80                                                                                | 1017                                                                              | 0                                                                                 | 19                                                                                  | 119                                                                                 | 0                                                                                   | 314                                                                                 | 88                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

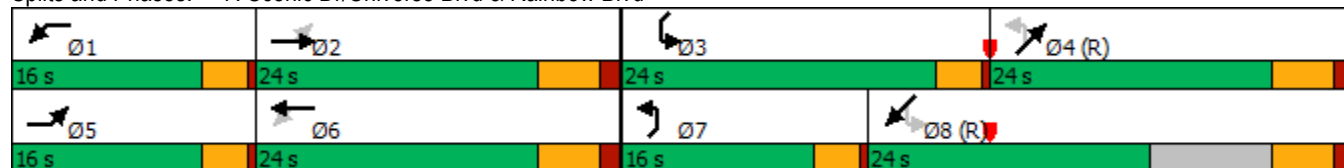
Lanes, Volumes, Timings  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

04/14/2022

|                                                                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                                                              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase                                                          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                  | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)                                                     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)                                                       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)                                                         | 16.0                                                                              | 24.0                                                                              |                                                                                   | 16.0                                                                              | 24.0                                                                              |                                                                                   | 16.0                                                                               | 24.0                                                                                |                                                                                     | 24.0                                                                                | 24.0                                                                                |                                                                                     |
| Total Split (%)                                                         | 18.2%                                                                             | 27.3%                                                                             |                                                                                   | 18.2%                                                                             | 27.3%                                                                             |                                                                                   | 18.2%                                                                              | 27.3%                                                                               |                                                                                     | 27.3%                                                                               | 27.3%                                                                               |                                                                                     |
| Maximum Green (s)                                                       | 12.5                                                                              | 18.5                                                                              |                                                                                   | 12.5                                                                              | 18.5                                                                              |                                                                                   | 12.5                                                                               | 18.5                                                                                |                                                                                     | 20.5                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)                                                         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)                                                        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)                                                    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)                                                     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                                                                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?                                                      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode                                                             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                               | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)                                                           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                    | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)                                                     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                    | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effect Green (s)                                                    | 31.6                                                                              | 26.1                                                                              |                                                                                   | 36.5                                                                              | 32.9                                                                              |                                                                                   | 31.9                                                                               | 25.4                                                                                |                                                                                     | 44.5                                                                                | 39.1                                                                                |                                                                                     |
| Actuated g/C Ratio                                                      | 0.36                                                                              | 0.30                                                                              |                                                                                   | 0.41                                                                              | 0.37                                                                              |                                                                                   | 0.36                                                                               | 0.29                                                                                |                                                                                     | 0.51                                                                                | 0.44                                                                                |                                                                                     |
| v/c Ratio                                                               | 0.03                                                                              | 0.44                                                                              |                                                                                   | 0.22                                                                              | 0.73                                                                              |                                                                                   | 0.04                                                                               | 0.22                                                                                |                                                                                     | 0.48                                                                                | 0.11                                                                                |                                                                                     |
| Control Delay                                                           | 16.0                                                                              | 27.4                                                                              |                                                                                   | 17.4                                                                              | 21.0                                                                              |                                                                                   | 12.6                                                                               | 19.8                                                                                |                                                                                     | 15.9                                                                                | 15.5                                                                                |                                                                                     |
| Queue Delay                                                             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay                                                             | 16.0                                                                              | 27.4                                                                              |                                                                                   | 17.4                                                                              | 21.0                                                                              |                                                                                   | 12.6                                                                               | 19.8                                                                                |                                                                                     | 15.9                                                                                | 15.5                                                                                |                                                                                     |
| LOS                                                                     | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                  | B                                                                                   |                                                                                     | B                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay                                                          |                                                                                   | 27.2                                                                              |                                                                                   |                                                                                   | 20.8                                                                              |                                                                                   |                                                                                    | 18.8                                                                                |                                                                                     |                                                                                     | 15.8                                                                                |                                                                                     |
| Approach LOS                                                            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)                                                  | 2                                                                                 | 108                                                                               |                                                                                   | 26                                                                                | 174                                                                               |                                                                                   | 5                                                                                  | 35                                                                                  |                                                                                     | 99                                                                                  | 24                                                                                  |                                                                                     |
| Queue Length 95th (ft)                                                  | 5                                                                                 | 110                                                                               |                                                                                   | 51                                                                                | #322                                                                              |                                                                                   | 11                                                                                 | 70                                                                                  |                                                                                     | 144                                                                                 | 43                                                                                  |                                                                                     |
| Internal Link Dist (ft)                                                 |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                    | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)                                                    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)                                                     | 328                                                                               | 1046                                                                              |                                                                                   | 442                                                                               | 1398                                                                              |                                                                                   | 656                                                                                | 531                                                                                 |                                                                                     | 711                                                                                 | 821                                                                                 |                                                                                     |
| Starvation Cap Reductn                                                  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn                                                     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio                                                       | 0.02                                                                              | 0.44                                                                              |                                                                                   | 0.18                                                                              | 0.73                                                                              |                                                                                   | 0.03                                                                               | 0.22                                                                                |                                                                                     | 0.44                                                                                | 0.11                                                                                |                                                                                     |
| <b>Intersection Summary</b>                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type:                                                              | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Cycle Length: 88                                                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length: 88                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Offset: 48 (55%), Referenced to phase 4:NETL and 8:SWTL, Start of Green |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Natural Cycle: 80                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type: Actuated-Coordinated                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Maximum v/c Ratio: 0.73                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Signal Delay: 21.1                                         | Intersection LOS: C                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization 64.3%                                 | ICU Level of Service C                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min) 15                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| # 95th percentile volume exceeds capacity, queue may be longer.         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



HCM 6th TWSC  
8: Driveway 3 & Rosa Parks Rd

04/14/2022

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

HCM 6th TWSC  
9: Driveway 4 & Rosa Parks Rd

04/14/2022

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |



Intersection

Int Delay, s/veh 0

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 0      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 0      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1022   |
| Mov Cap-2 Maneuver   | -      | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |

# **APPENDIX M**

## **Phase III 2027 - Build Synchro Reports**

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 193                                                                               | 458                                                                               | 74                                                                                | 117                                                                               | 208                                                                               | 159                                                                               | 14                                                                                  | 242                                                                                 | 206                                                                                 | 334                                                                                 | 542                                                                                 | 290                                                                                 |
| Future Volume (vph)        | 193                                                                               | 458                                                                               | 74                                                                                | 117                                                                               | 208                                                                               | 159                                                                               | 14                                                                                  | 242                                                                                 | 206                                                                                 | 334                                                                                 | 542                                                                                 | 290                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.937                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1745                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.145                                                                             |                                                                                   |                                                                                   | 0.164                                                                             |                                                                                   |                                                                                   | 0.206                                                                               |                                                                                     |                                                                                     | 0.410                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 270                                                                               | 1863                                                                              | 1583                                                                              | 305                                                                               | 1745                                                                              | 0                                                                                 | 384                                                                                 | 1863                                                                                | 1583                                                                                | 764                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 124                                                                               |                                                                                   | 30                                                                                |                                                                                   |                                                                                     |                                                                                     | 164                                                                                 |                                                                                     |                                                                                     | 294                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                                | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 230                                                                               | 559                                                                               | 94                                                                                | 192                                                                               | 301                                                                               | 218                                                                               | 31                                                                                  | 306                                                                                 | 349                                                                                 | 384                                                                                 | 695                                                                                 | 330                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 230                                                                               | 559                                                                               | 94                                                                                | 192                                                                               | 519                                                                               | 0                                                                                 | 31                                                                                  | 306                                                                                 | 349                                                                                 | 384                                                                                 | 695                                                                                 | 330                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 17.0  | 32.0  | 32.0  | 13.0  | 29.0  |     | 13.0  | 45.0  | 45.0  | 19.0  | 51.0  | 51.0  |
| Total Split (%)         | 15.5% | 29.1% | 29.1% | 11.8% | 26.4% |     | 11.8% | 40.9% | 40.9% | 17.3% | 46.4% | 46.4% |
| Maximum Green (s)       | 13.5  | 26.5  | 26.5  | 9.5   | 23.5  |     | 9.5   | 40.0  | 40.0  | 15.5  | 46.0  | 46.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | None  | None  | None  | None  |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 41.8  | 27.6  | 27.6  | 35.9  | 24.4  |     | 47.2  | 40.8  | 40.8  | 60.5  | 53.7  | 53.7  |
| Actuated g/C Ratio      | 0.38  | 0.25  | 0.25  | 0.33  | 0.22  |     | 0.43  | 0.37  | 0.37  | 0.55  | 0.49  | 0.49  |
| v/c Ratio               | 0.84  | 1.20  | 0.19  | 0.85  | 1.27  |     | 0.14  | 0.44  | 0.51  | 0.69  | 0.76  | 0.36  |
| Control Delay           | 51.6  | 146.1 | 3.6   | 59.0  | 172.5 |     | 13.7  | 28.9  | 16.7  | 22.0  | 31.0  | 4.4   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 51.6  | 146.1 | 3.6   | 59.0  | 172.5 |     | 13.7  | 28.9  | 16.7  | 22.0  | 31.0  | 4.4   |
| LOS                     | D     | F     | A     | E     | F     |     | B     | C     | B     | C     | C     | A     |
| Approach Delay          |       | 106.3 |       |       | 141.8 |     |       | 22.0  |       |       | 22.3  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | C     |       |       | C     |       |
| Queue Length 50th (ft)  | 113   | ~480  | 0     | 92    | ~458  |     | 10    | 163   | 97    | 148   | 411   | 14    |
| Queue Length 95th (ft)  | #195  | #600  | 12    | 94    | #438  |     | 11    | 207   | 72    | 207   | 461   | 61    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 288   | 466   | 489   | 226   | 410   |     | 300   | 691   | 691   | 561   | 909   | 923   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 0.80  | 1.20  | 0.19  | 0.85  | 1.27  |     | 0.10  | 0.44  | 0.51  | 0.68  | 0.76  | 0.36  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.27

Intersection Signal Delay: 65.4

Intersection LOS: E

Intersection Capacity Utilization 78.6%

ICU Level of Service D

Analysis Period (min) 15

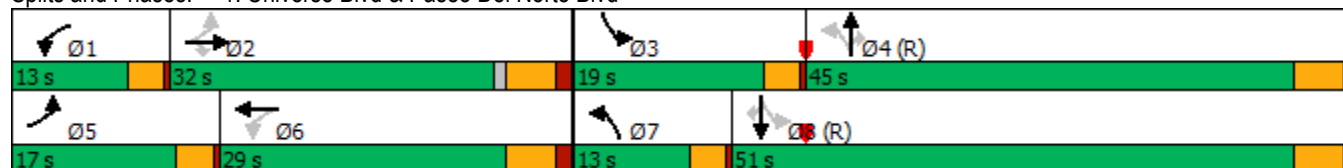
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2.6                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 13                                                                                | 33                                                                                | 68                                                                                | 254                                                                               | 693                                                                               | 145                                                                               |
| Future Vol, veh/h        | 13                                                                                | 33                                                                                | 68                                                                                | 254                                                                               | 693                                                                               | 145                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 33                                                                                | 73                                                                                | 139                                                                               | 276                                                                               | 753                                                                               | 309                                                                               |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1307                                                                              | 753                                                                               | 1062                                                                              | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 753                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 554                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 176                                                                               | 410                                                                               | 656                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 465                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 575                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 139                                                                               | 410                                                                               | 656                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 139                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 366                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 575                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 23                                                                                | 4                                                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 656                                                                               | -                                                                                 | 139                                                                               | 410                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.212                                                                             | -                                                                                 | 0.24                                                                              | 0.179                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 12                                                                                | -                                                                                 | 38.9                                                                              | 15.7                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | B                                                                                 | -                                                                                 | E                                                                                 | C                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.8                                                                               | -                                                                                 | 0.9                                                                               | 0.6                                                                               | -                                                                                 | -                                                                                 |



Intersection

Int Delay, s/veh 0.9

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 15                                                                                | 34   | 288                                                                               | 19   | 28   | 698                                                                               |
| Future Vol, veh/h        | 15                                                                                | 34   | 288                                                                               | 19   | 28   | 698                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 16                                                                                | 37   | 313                                                                               | 21   | 30   | 759                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1143   | 324    | 0      |
| Stage 1              | 324    | -      | -      |
| Stage 2              | 819    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 221    | 717    | -      |
| Stage 1              | 733    | -      | -      |
| Stage 2              | 433    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 212    | 717    | -      |
| Mov Cap-2 Maneuver   | 212    | -      | -      |
| Stage 1              | 733    | -      | -      |
| Stage 2              | 415    | -      | -      |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 14.9 | 0  | 0.3 |
| HCM LOS              | B    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 415   | 1225  |
| HCM Lane V/C Ratio    | -   | -        | 0.128 | 0.025 |
| HCM Control Delay (s) | -   | -        | 14.9  | 8     |
| HCM Lane LOS          | -   | -        | B     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.4   | 0.1   |

| Intersection             |                                                                                   |        |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.8                                                                               |        |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR    | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |        |  |        |       |  |
| Traffic Vol, veh/h       | 19                                                                                | 23     | 284                                                                               | 18     | 21    | 692                                                                               |
| Future Vol, veh/h        | 19                                                                                | 23     | 284                                                                               | 18     | 21    | 692                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop   | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None   | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -      | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -      | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -      | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92     | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 21                                                                                | 25     | 309                                                                               | 20     | 23    | 752                                                                               |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1 |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1117                                                                              | 319    | 0                                                                                 | 0      | 329   | 0                                                                                 |
| Stage 1                  | 319                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 798                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22   | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -      | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -      | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318  | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 229                                                                               | 722    | -                                                                                 | -      | 1231  | -                                                                                 |
| Stage 1                  | 737                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 443                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |        | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 222                                                                               | 722    | -                                                                                 | -      | 1231  | -                                                                                 |
| Mov Cap-2 Maneuver       | 222                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 737                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 429                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB     |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 16.5                                                                              | 0      |                                                                                   | 0.2    |       |                                                                                   |
| HCM LOS                  | C                                                                                 |        |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBR    | WBLn1                                                                             | SBL    | SBT   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -      | 358                                                                               | 1231   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -      | 0.128                                                                             | 0.019  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -      | 16.5                                                                              | 8      | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -      | C                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -      | 0.4                                                                               | 0.1    | -     |                                                                                   |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1                                                                                 |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 30                                                                                | 26       | 276                                                                               | 11     | 8     | 703                                                                               |
| Future Vol, veh/h        | 30                                                                                | 26       | 276                                                                               | 11     | 8     | 703                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 33                                                                                | 28       | 300                                                                               | 12     | 9     | 764                                                                               |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1088                                                                              | 306      | 0                                                                                 | 0      | 312   | 0                                                                                 |
| Stage 1                  | 306                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 782                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 239                                                                               | 734      | -                                                                                 | -      | 1248  | -                                                                                 |
| Stage 1                  | 747                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 451                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 236                                                                               | 734      | -                                                                                 | -      | 1248  | -                                                                                 |
| Mov Cap-2 Maneuver       | 236                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 747                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 445                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 17.7                                                                              | 0        |                                                                                   | 0.1    |       |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 |                                                                                   | SBL    | SBT   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 345                                                                               | 1248   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.176                                                                             | 0.007  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 17.7                                                                              | 7.9    | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.6                                                                               | 0      | -     |                                                                                   |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.1                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 4                                                                                 | 5        | 282                                                                               | 1      | 2     | 731                                                                               |
| Future Vol, veh/h        | 4                                                                                 | 5        | 282                                                                               | 1      | 2     | 731                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 4                                                                                 | 5        | 307                                                                               | 1      | 2     | 795                                                                               |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1107                                                                              | 308      | 0                                                                                 | 0      | 308   | 0                                                                                 |
| Stage 1                  | 308                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 799                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 233                                                                               | 732      | -                                                                                 | -      | 1253  | -                                                                                 |
| Stage 1                  | 745                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 443                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 232                                                                               | 732      | -                                                                                 | -      | 1253  | -                                                                                 |
| Mov Cap-2 Maneuver       | 232                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 745                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 442                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 14.9                                                                              | 0        |                                                                                   | 0      |       |                                                                                   |
| HCM LOS                  | B                                                                                 |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 374                                                                               | 1253   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.026                                                                             | 0.002  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 14.9                                                                              | 7.9    | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | B                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.1                                                                               | 0      | -     |                                                                                   |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 7                                                                                 | 511                                                                               | 17                                                                                | 12                                                                                | 407                                                                               | 225                                                                               | 62                                                                                  | 52                                                                                  | 55                                                                                  | 679                                                                                 | 36                                                                                  | 21                                                                                  |
| Future Volume (vph)        | 7                                                                                 | 511                                                                               | 17                                                                                | 12                                                                                | 407                                                                               | 225                                                                               | 62                                                                                  | 52                                                                                  | 55                                                                                  | 679                                                                                 | 36                                                                                  | 21                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.955                                                                             |                                                                                   |                                                                                     | 0.924                                                                               |                                                                                     |                                                                                     | 0.923                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3380                                                                              | 0                                                                                 | 1770                                                                                | 1721                                                                                | 0                                                                                   | 1770                                                                                | 1719                                                                                | 0                                                                                   |
| Flt Permitted              | 0.133                                                                             |                                                                                   |                                                                                   | 0.235                                                                             |                                                                                   |                                                                                   | 0.694                                                                               |                                                                                     |                                                                                     | 0.480                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 248                                                                               | 3514                                                                              | 0                                                                                 | 438                                                                               | 3380                                                                              | 0                                                                                 | 1293                                                                                | 1721                                                                                | 0                                                                                   | 894                                                                                 | 1719                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 70                                                                                |                                                                                   |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     | 50                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 14                                                                                | 655                                                                               | 34                                                                                | 24                                                                                | 607                                                                               | 262                                                                               | 127                                                                                 | 73                                                                                  | 75                                                                                  | 780                                                                                 | 48                                                                                  | 50                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 14                                                                                | 689                                                                               | 0                                                                                 | 24                                                                                | 869                                                                               | 0                                                                                 | 127                                                                                 | 148                                                                                 | 0                                                                                   | 780                                                                                 | 98                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

Build 2027 AM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022



| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 36.0  |     | 16.0  | 34.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 16.0% | 36.0% |     | 16.0% | 34.0% |     | 16.0% | 24.0% |     | 24.0% | 24.0% |     |
| Maximum Green (s)       | 12.5  | 30.5  |     | 12.5  | 28.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 34.5  | 30.4  |     | 34.8  | 30.6  |     | 28.2  | 18.5  |     | 56.9  | 43.8  |     |
| Actuated g/C Ratio      | 0.34  | 0.30  |     | 0.35  | 0.31  |     | 0.28  | 0.18  |     | 0.57  | 0.44  |     |
| v/c Ratio               | 0.09  | 0.64  |     | 0.11  | 0.80  |     | 0.32  | 0.42  |     | 0.98  | 0.13  |     |
| Control Delay           | 17.3  | 32.3  |     | 17.9  | 35.1  |     | 18.3  | 28.9  |     | 49.8  | 12.9  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 17.3  | 32.3  |     | 17.9  | 35.1  |     | 18.3  | 28.9  |     | 49.8  | 12.9  |     |
| LOS                     | B     | C     |     | B     | D     |     | B     | C     |     | D     | B     |     |
| Approach Delay          |       | 32.0  |     |       | 34.6  |     |       | 24.0  |     |       | 45.7  |     |
| Approach LOS            |       | C     |     |       | C     |     |       | C     |     |       | D     |     |
| Queue Length 50th (ft)  | 6     | 195   |     | 10    | 245   |     | 32    | 57    |     | 330   | 16    |     |
| Queue Length 95th (ft)  | 8     | 193   |     | 12    | 187   |     | 43    | 83    |     | #841  | 48    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 279   | 1141  |     | 324   | 1147  |     | 486   | 355   |     | 797   | 780   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.05  | 0.60  |     | 0.07  | 0.76  |     | 0.26  | 0.42  |     | 0.98  | 0.13  |     |

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 60 (60%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 36.4 Intersection LOS: D

Intersection Capacity Utilization 71.9% ICU Level of Service C

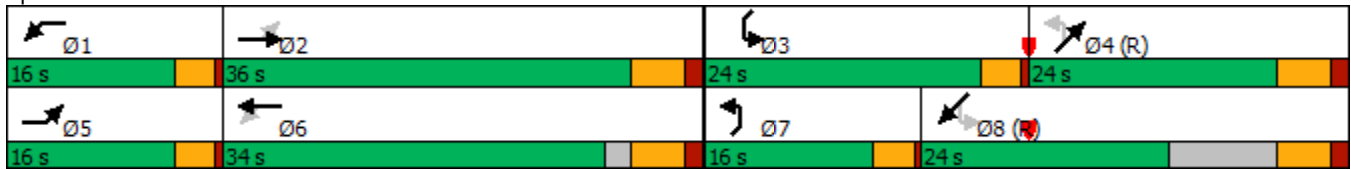
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.



Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



Intersection

Int Delay, s/veh 2.3

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 14                                                                                | 33   | 0    | 30                                                                                | 19                                                                                | 8    |
| Future Vol, veh/h        | 14                                                                                | 33   | 0    | 30                                                                                | 19                                                                                | 8    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 15                                                                                | 36   | 0    | 33                                                                                | 21                                                                                | 9    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 51     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1555   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1555   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.8 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 967   | -   | -   | 1555 | -   |
| HCM Lane V/C Ratio    | 0.03  | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.8   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 3

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 7                                                                                 | 7    | 0    | 15                                                                                | 15                                                                                | 0    |
| Future Vol, veh/h        | 7                                                                                 | 7    | 0    | 15                                                                                | 15                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 8                                                                                 | 8    | 0    | 16                                                                                | 16                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 16     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | 1602   | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1602   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.7 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 987   | -   | -   | 1602 | -   |
| HCM Lane V/C Ratio    | 0.017 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.7   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 5.6

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 7    | 0    | 0                                                                                 | 15                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 7    | 0    | 0                                                                                 | 15                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 8    | 0    | 0                                                                                 | 16                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 8      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1612   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1612   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.6 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 1017  | -   | -   | 1612 | -   |
| HCM Lane V/C Ratio    | 0.016 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.6   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 7.5

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 3    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 9    |
| Future Vol, veh/h        | 3    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 9    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 3    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 10   |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 7      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 6      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1014   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | 1017   |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1012   |
| Mov Cap-2 Maneuver   | -      | -      | 1012   |
| Stage 1              | -      | -      | 1020   |
| Stage 2              | -      | -      | 1017   |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 7.2 | 0  | 8.4 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622  | -   | -   | -   | 1084  |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.009 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 259                                                                               | 319                                                                               | 16                                                                                | 212                                                                               | 481                                                                               | 384                                                                               | 17                                                                                  | 428                                                                                 | 150                                                                                 | 183                                                                                 | 374                                                                                 | 319                                                                                 |
| Future Volume (vph)        | 259                                                                               | 319                                                                               | 16                                                                                | 212                                                                               | 481                                                                               | 384                                                                               | 17                                                                                  | 428                                                                                 | 150                                                                                 | 183                                                                                 | 374                                                                                 | 319                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.935                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1742                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.100                                                                             |                                                                                   |                                                                                   | 0.349                                                                             |                                                                                   |                                                                                   | 0.327                                                                               |                                                                                     |                                                                                     | 0.119                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 186                                                                               | 1863                                                                              | 1583                                                                              | 650                                                                               | 1742                                                                              | 0                                                                                 | 609                                                                                 | 1863                                                                                | 1583                                                                                | 222                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 89                                                                                |                                                                                   | 39                                                                                |                                                                                   |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 336                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.73                                                                              | 0.81                                                                              | 0.62                                                                              | 0.80                                                                              | 0.91                                                                              | 0.95                                                                              | 0.75                                                                                | 0.85                                                                                | 0.81                                                                                | 0.79                                                                                | 0.81                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 355                                                                               | 394                                                                               | 26                                                                                | 265                                                                               | 529                                                                               | 404                                                                               | 23                                                                                  | 504                                                                                 | 185                                                                                 | 232                                                                                 | 462                                                                                 | 336                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 355                                                                               | 394                                                                               | 26                                                                                | 265                                                                               | 933                                                                               | 0                                                                                 | 23                                                                                  | 504                                                                                 | 185                                                                                 | 232                                                                                 | 462                                                                                 | 336                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 15.0  | 45.0  | 45.0  | 15.0  | 45.0  |     | 15.0  | 35.0  | 35.0  | 15.0  | 35.0  | 35.0  |
| Total Split (%)         | 13.6% | 40.9% | 40.9% | 13.6% | 40.9% |     | 13.6% | 31.8% | 31.8% | 13.6% | 31.8% | 31.8% |
| Maximum Green (s)       | 11.5  | 39.5  | 39.5  | 11.5  | 39.5  |     | 11.5  | 30.0  | 30.0  | 11.5  | 30.0  | 30.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | Min   | Min   | None  | Min   |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 53.6  | 40.1  | 40.1  | 52.4  | 39.5  |     | 36.4  | 30.0  | 30.0  | 46.5  | 41.3  | 41.3  |
| Actuated g/C Ratio      | 0.49  | 0.36  | 0.36  | 0.48  | 0.36  |     | 0.33  | 0.27  | 0.27  | 0.42  | 0.38  | 0.38  |
| v/c Ratio               | 1.39  | 0.58  | 0.04  | 0.63  | 1.44  |     | 0.09  | 0.99  | 0.37  | 0.91  | 0.66  | 0.42  |
| Control Delay           | 223.0 | 32.6  | 0.1   | 23.2  | 233.4 |     | 19.9  | 78.7  | 18.2  | 64.0  | 35.2  | 4.7   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 223.0 | 32.6  | 0.1   | 23.2  | 233.4 |     | 19.9  | 78.7  | 18.2  | 64.0  | 35.2  | 4.7   |
| LOS                     | F     | C     | A     | C     | F     |     | B     | E     | B     | E     | D     | A     |
| Approach Delay          |       | 118.7 |       |       | 186.9 |     |       | 61.1  |       |       | 31.8  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | E     |       |       | C     |       |
| Queue Length 50th (ft)  | ~284  | 224   | 0     | 103   | ~884  |     | 9     | 355   | 50    | 110   | 252   | 0     |
| Queue Length 95th (ft)  | #334  | 282   | 0     | 136   | #1131 |     | 21    | #521  | 93    | #195  | 360   | 63    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 256   | 678   | 633   | 430   | 650   |     | 359   | 508   | 500   | 255   | 700   | 804   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 1.39  | 0.58  | 0.04  | 0.62  | 1.44  |     | 0.06  | 0.99  | 0.37  | 0.91  | 0.66  | 0.42  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 48 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.44

Intersection Signal Delay: 105.6

Intersection LOS: F

Intersection Capacity Utilization 111.2%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.



Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 3                                                                                 | 11                                                                                | 10                                                                                | 586                                                                               | 391                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 3                                                                                 | 11                                                                                | 10                                                                                | 586                                                                               | 391                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 6                                                                                 | 33                                                                                | 40                                                                                | 637                                                                               | 420                                                                               | 0                                                                                 |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1137                                                                              | 420                                                                               | 420                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 420                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 717                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 223                                                                               | 633                                                                               | 1139                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 663                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 484                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 215                                                                               | 633                                                                               | 1139                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 215                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 640                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 484                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 12.7                                                                              | 0.5                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1139                                                                              | -                                                                                 | 215                                                                               | 633                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.035                                                                             | -                                                                                 | 0.028                                                                             | 0.053                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 8.3                                                                               | -                                                                                 | 22.2                                                                              | 11                                                                                | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.1                                                                               | -                                                                                 | 0.1                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |          |                                                                                   |       |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|-------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.7                                                                               |          |                                                                                   |       |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR   | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |       |       |  |
| Traffic Vol, veh/h       | 26                                                                                | 42       | 554                                                                               | 30    | 50    | 351                                                                               |
| Future Vol, veh/h        | 26                                                                                | 42       | 554                                                                               | 30    | 50    | 351                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0     | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free  | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None  | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -     | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -     | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -     | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92    | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2     | 2     | 2                                                                                 |
| Mvmt Flow                | 28                                                                                | 46       | 602                                                                               | 33    | 54    | 382                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   | Major2                                                                            |       |       |                                                                                   |
| Conflicting Flow All     | 1109                                                                              | 619      | 0                                                                                 | 0     | 635   | 0                                                                                 |
| Stage 1                  | 619                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 490                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -     | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -     | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -     | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 232                                                                               | 489      | -                                                                                 | -     | 948   | -                                                                                 |
| Stage 1                  | 537                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 616                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -     |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 215                                                                               | 489      | -                                                                                 | -     | 948   | -                                                                                 |
| Mov Cap-2 Maneuver       | 215                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 1                  | 537                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 572                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       | SB                                                                                |       |       |                                                                                   |
| HCM Control Delay, s     | 19.1                                                                              | 0        | 1.1                                                                               |       |       |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |       |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT   |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 329                                                                               | 948   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.225                                                                             | 0.057 | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 19.1                                                                              | 9     | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A     | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.8                                                                               | 0.2   | -     |                                                                                   |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.4                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 26                                                                                | 31       | 553                                                                               | 30     | 37    | 340                                                                               |
| Future Vol, veh/h        | 26                                                                                | 31       | 553                                                                               | 30     | 37    | 340                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 28                                                                                | 34       | 601                                                                               | 33     | 40    | 370                                                                               |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1068                                                                              | 618      | 0                                                                                 | 0      | 634   | 0                                                                                 |
| Stage 1                  | 618                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 450                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 245                                                                               | 489      | -                                                                                 | -      | 949   | -                                                                                 |
| Stage 1                  | 538                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 642                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 232                                                                               | 489      | -                                                                                 | -      | 949   | -                                                                                 |
| Mov Cap-2 Maneuver       | 232                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 538                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 608                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 18.7                                                                              | 0        |                                                                                   | 0.9    |       |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 325                                                                               | 949    | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.191                                                                             | 0.042  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 18.7                                                                              | 9      | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.7                                                                               | 0.1    | -     |                                                                                   |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.8                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 19                                                                                | 14       | 569                                                                               | 26     | 19    | 347                                                                               |
| Future Vol, veh/h        | 19                                                                                | 14       | 569                                                                               | 26     | 19    | 347                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 21                                                                                | 15       | 618                                                                               | 28     | 21    | 377                                                                               |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1051                                                                              | 632      | 0                                                                                 | 0      | 646   | 0                                                                                 |
| Stage 1                  | 632                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 419                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 251                                                                               | 480      | -                                                                                 | -      | 939   | -                                                                                 |
| Stage 1                  | 530                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 664                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 244                                                                               | 480      | -                                                                                 | -      | 939   | -                                                                                 |
| Mov Cap-2 Maneuver       | 244                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 530                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 645                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 18.2                                                                              | 0        |                                                                                   | 0.5    |       |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 308                                                                               | 939    | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.116                                                                             | 0.022  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 18.2                                                                              | 8.9    | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.4                                                                               | 0.1    | -     |                                                                                   |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.1                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 1                                                                                 | 3        | 592                                                                               | 3      | 4     | 362                                                                               |
| Future Vol, veh/h        | 1                                                                                 | 3        | 592                                                                               | 3      | 4     | 362                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 1                                                                                 | 3        | 643                                                                               | 3      | 4     | 393                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1046                                                                              | 645      | 0                                                                                 | 0      | 646   | 0                                                                                 |
| Stage 1                  | 645                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 401                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 253                                                                               | 472      | -                                                                                 | -      | 939   | -                                                                                 |
| Stage 1                  | 522                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 676                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 252                                                                               | 472      | -                                                                                 | -      | 939   | -                                                                                 |
| Mov Cap-2 Maneuver       | 252                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 522                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 673                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 14.4                                                                              | 0        |                                                                                   | 0.1    |       |                                                                                   |
| HCM LOS                  | B                                                                                 |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 |                                                                                   | SBL    | SBT   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | - 387    |                                                                                   | 939    | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | - 0.011  |                                                                                   | 0.005  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | - 14.4   |                                                                                   | 8.9    | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | - B      |                                                                                   | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | - 0      |                                                                                   | 0      | -     |                                                                                   |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 6                                                                                 | 285                                                                               | 12                                                                                | 68                                                                                | 435                                                                               | 528                                                                               | 12                                                                                  | 62                                                                                  | 40                                                                                  | 302                                                                                 | 58                                                                                  | 5                                                                                   |
| Future Volume (vph)        | 6                                                                                 | 285                                                                               | 12                                                                                | 68                                                                                | 435                                                                               | 528                                                                               | 12                                                                                  | 62                                                                                  | 40                                                                                  | 302                                                                                 | 58                                                                                  | 5                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.994                                                                             |                                                                                   |                                                                                   | 0.917                                                                             |                                                                                   |                                                                                     | 0.944                                                                               |                                                                                     |                                                                                     | 0.985                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3518                                                                              | 0                                                                                 | 1770                                                                              | 3245                                                                              | 0                                                                                 | 1770                                                                                | 1758                                                                                | 0                                                                                   | 1770                                                                                | 1835                                                                                | 0                                                                                   |
| Flt Permitted              | 0.142                                                                             |                                                                                   |                                                                                   | 0.377                                                                             |                                                                                   |                                                                                   | 0.694                                                                               |                                                                                     |                                                                                     | 0.580                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 265                                                                               | 3518                                                                              | 0                                                                                 | 702                                                                               | 3245                                                                              | 0                                                                                 | 1293                                                                                | 1758                                                                                | 0                                                                                   | 1080                                                                                | 1835                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 324                                                                               |                                                                                   |                                                                                     | 31                                                                                  |                                                                                     |                                                                                     | 7                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 12                                                                                | 438                                                                               | 19                                                                                | 80                                                                                | 483                                                                               | 600                                                                               | 19                                                                                  | 79                                                                                  | 47                                                                                  | 360                                                                                 | 88                                                                                  | 10                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 12                                                                                | 457                                                                               | 0                                                                                 | 80                                                                                | 1083                                                                              | 0                                                                                 | 19                                                                                  | 126                                                                                 | 0                                                                                   | 360                                                                                 | 98                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |





| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 27.3% | 27.3% |     |
| Maximum Green (s)       | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 31.8  | 26.1  |     | 36.5  | 32.8  |     | 30.4  | 23.9  |     | 44.5  | 39.1  |     |
| Actuated g/C Ratio      | 0.36  | 0.30  |     | 0.41  | 0.37  |     | 0.35  | 0.27  |     | 0.51  | 0.44  |     |
| v/c Ratio               | 0.07  | 0.44  |     | 0.22  | 0.77  |     | 0.04  | 0.25  |     | 0.54  | 0.12  |     |
| Control Delay           | 16.3  | 27.4  |     | 17.4  | 21.9  |     | 12.8  | 22.0  |     | 17.0  | 15.2  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 16.3  | 27.4  |     | 17.4  | 21.9  |     | 12.8  | 22.0  |     | 17.0  | 15.2  |     |
| LOS                     | B     | C     |     | B     | C     |     | B     | C     |     | B     | B     |     |
| Approach Delay          |       | 27.1  |     |       | 21.6  |     |       | 20.8  |     |       | 16.6  |     |
| Approach LOS            |       | C     |     |       | C     |     |       | C     |     |       | B     |     |
| Queue Length 50th (ft)  | 4     | 108   |     | 26    | 187   |     | 5     | 41    |     | 118   | 26    |     |
| Queue Length 95th (ft)  | 8     | 110   |     | 51    | #355  |     | 11    | 77    |     | 167   | 45    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 323   | 1046  |     | 442   | 1411  |     | 631   | 499   |     | 706   | 818   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.04  | 0.44  |     | 0.18  | 0.77  |     | 0.03  | 0.25  |     | 0.51  | 0.12  |     |

## Intersection Summary

Area Type: Other

Cycle Length: 88

Actuated Cycle Length: 88

Offset: 48 (55%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 21.7

Intersection LOS: C

Intersection Capacity Utilization 68.2%

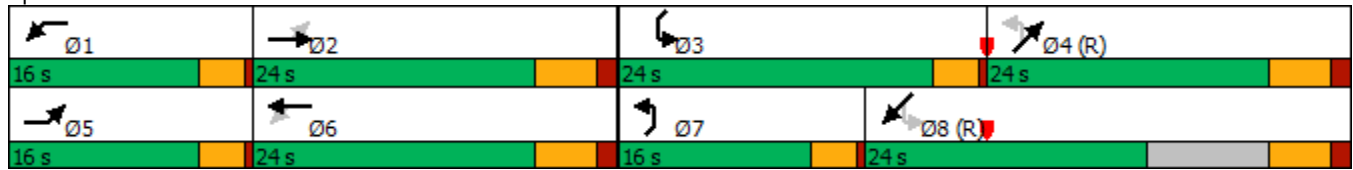
ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



Intersection

Int Delay, s/veh 4

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 28                                                                                | 52   | 21   | 0                                                                                 | 47                                                                                | 0    |
| Future Vol, veh/h        | 28                                                                                | 52   | 21   | 0                                                                                 | 47                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 30                                                                                | 57   | 23   | 0                                                                                 | 51                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 87     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1509   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1509   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB  |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0  | 7.4 | 9.3 |
| HCM LOS              |    |     | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 880   | -   | -   | 1509  | -   |
| HCM Lane V/C Ratio    | 0.058 | -   | -   | 0.015 | -   |
| HCM Control Delay (s) | 9.3   | -   | -   | 7.4   | 0   |
| HCM Lane LOS          | A     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | 0     | -   |

Intersection

Int Delay, s/veh 2

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 14                                                                                | 14   | 0    | 10                                                                                | 11                                                                                | 0    |
| Future Vol, veh/h        | 14                                                                                | 14   | 0    | 10                                                                                | 11                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 15                                                                                | 15   | 0    | 11                                                                                | 12                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 30     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1583   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1583   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.7 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 979   | -   | -   | 1583 | -   |
| HCM Lane V/C Ratio    | 0.012 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.7   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 3.4

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 14   | 0    | 0                                                                                 | 10                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 14   | 0    | 0                                                                                 | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 15   | 0    | 0                                                                                 | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 15     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1603   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1603   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.6 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 1011  | -   | -   | 1603 | -   |
| HCM Lane V/C Ratio    | 0.011 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.6   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 7

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 7    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 4    |
| Future Vol, veh/h        | 7    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 4    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 8    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 4    |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 1      | 0      | 0 17 1        |
| Stage 1              | -      | -      | - 1 -         |
| Stage 2              | -      | -      | - 16 -        |
| Critical Hdwy        | 4.12   | -      | - 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | - 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | - 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | - 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1622   | -      | - 1001 1084   |
| Stage 1              | -      | -      | - 1022 -      |
| Stage 2              | -      | -      | - 1007 -      |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1622   | -      | - 996 1084    |
| Mov Cap-2 Maneuver   | -      | -      | - 996 -       |
| Stage 1              | -      | -      | - 1017 -      |
| Stage 2              | -      | -      | - 1007 -      |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 7.2 | 0  | 8.3 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622  | -   | -   | -   | 1084  |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | -   | 0.004 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.3   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

# **APPENDIX N**

## **Horizon 2033 – No Build Synchro Reports**



|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 229                                                                               | 538                                                                               | 80                                                                                | 118                                                                               | 244                                                                               | 187                                                                               | 14                                                                                  | 285                                                                                 | 186                                                                                 | 401                                                                                 | 642                                                                                 | 347                                                                                 |
| Future Volume (vph)        | 229                                                                               | 538                                                                               | 80                                                                                | 118                                                                               | 244                                                                               | 187                                                                               | 14                                                                                  | 285                                                                                 | 186                                                                                 | 401                                                                                 | 642                                                                                 | 347                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.937                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1745                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.148                                                                             |                                                                                   |                                                                                   | 0.170                                                                             |                                                                                   |                                                                                   | 0.100                                                                               |                                                                                     |                                                                                     | 0.344                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 276                                                                               | 1863                                                                              | 1583                                                                              | 317                                                                               | 1745                                                                              | 0                                                                                 | 186                                                                                 | 1863                                                                                | 1583                                                                                | 641                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 124                                                                               |                                                                                   | 30                                                                                |                                                                                   |                                                                                     |                                                                                     | 164                                                                                 |                                                                                     |                                                                                     | 296                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                                | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 273                                                                               | 656                                                                               | 101                                                                               | 193                                                                               | 354                                                                               | 256                                                                               | 31                                                                                  | 361                                                                                 | 315                                                                                 | 461                                                                                 | 823                                                                                 | 394                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 273                                                                               | 656                                                                               | 101                                                                               | 193                                                                               | 610                                                                               | 0                                                                                 | 31                                                                                  | 361                                                                                 | 315                                                                                 | 461                                                                                 | 823                                                                                 | 394                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   | 8                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 20.0                                                                              | 20.0                                                                              | 3.0                                                                               | 20.0                                                                              |                                                                                   | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                |
| Minimum Split (s)       | 9.5                                                                               | 34.5                                                                              | 34.5                                                                              | 9.5                                                                               | 25.5                                                                              |                                                                                   | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                |
| Total Split (s)         | 17.0                                                                              | 32.0                                                                              | 32.0                                                                              | 13.0                                                                              | 29.0                                                                              |                                                                                   | 13.0                                                                                | 45.0                                                                                | 45.0                                                                                | 19.0                                                                                | 51.0                                                                                | 51.0                                                                                |
| Total Split (%)         | 15.5%                                                                             | 29.1%                                                                             | 29.1%                                                                             | 11.8%                                                                             | 26.4%                                                                             |                                                                                   | 11.8%                                                                               | 40.9%                                                                               | 40.9%                                                                               | 17.3%                                                                               | 46.4%                                                                               | 46.4%                                                                               |
| Maximum Green (s)       | 13.5                                                                              | 26.5                                                                              | 26.5                                                                              | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 40.0                                                                                | 40.0                                                                                | 15.5                                                                                | 46.0                                                                                | 46.0                                                                                |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              |                                                                                   | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |
| Walk Time (s)           |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)     |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                   | 12.0                                                                              |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 9.0                                                                                 | 9.0                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |
| Act Effect Green (s)    | 42.5                                                                              | 27.5                                                                              | 27.5                                                                              | 35.0                                                                              | 23.5                                                                              |                                                                                   | 46.4                                                                                | 40.0                                                                                | 40.0                                                                                | 60.5                                                                                | 53.7                                                                                | 53.7                                                                                |
| Actuated g/C Ratio      | 0.39                                                                              | 0.25                                                                              | 0.25                                                                              | 0.32                                                                              | 0.21                                                                              |                                                                                   | 0.42                                                                                | 0.36                                                                                | 0.36                                                                                | 0.55                                                                                | 0.49                                                                                | 0.49                                                                                |
| v/c Ratio               | 0.94                                                                              | 1.41                                                                              | 0.21                                                                              | 0.86                                                                              | 1.54                                                                              |                                                                                   | 0.21                                                                                | 0.53                                                                                | 0.46                                                                                | 0.90                                                                                | 0.91                                                                                | 0.43                                                                                |
| Control Delay           | 68.8                                                                              | 229.4                                                                             | 4.6                                                                               | 59.1                                                                              | 286.0                                                                             |                                                                                   | 15.8                                                                                | 31.2                                                                                | 14.8                                                                                | 40.1                                                                                | 42.1                                                                                | 6.6                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 68.8                                                                              | 229.4                                                                             | 4.6                                                                               | 59.1                                                                              | 286.0                                                                             |                                                                                   | 15.8                                                                                | 31.2                                                                                | 14.8                                                                                | 40.1                                                                                | 42.1                                                                                | 6.6                                                                                 |
| LOS                     | E                                                                                 | F                                                                                 | A                                                                                 | E                                                                                 | F                                                                                 |                                                                                   | B                                                                                   | C                                                                                   | B                                                                                   | D                                                                                   | D                                                                                   | A                                                                                   |
| Approach Delay          |                                                                                   | 164.8                                                                             |                                                                                   |                                                                                   | 231.5                                                                             |                                                                                   |                                                                                     | 23.2                                                                                |                                                                                     |                                                                                     | 33.2                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 138                                                                               | ~623                                                                              | 0                                                                                 | 93                                                                                | ~594                                                                              |                                                                                   | 10                                                                                  | 199                                                                                 | 75                                                                                  | 188                                                                                 | 546                                                                                 | 39                                                                                  |
| Queue Length 95th (ft)  | #263                                                                              | #741                                                                              | 17                                                                                | 95                                                                                | #551                                                                              |                                                                                   | 11                                                                                  | 246                                                                                 | 58                                                                                  | #324                                                                                | #615                                                                                | 102                                                                                 |
| Internal Link Dist (ft) |                                                                                   | 127                                                                               |                                                                                   |                                                                                   | 462                                                                               |                                                                                   |                                                                                     | 201                                                                                 |                                                                                     |                                                                                     | 642                                                                                 |                                                                                     |
| Turn Bay Length (ft)    |                                                                                   |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   |                                                                                   | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Base Capacity (vph)     | 289                                                                               | 466                                                                               | 489                                                                               | 226                                                                               | 396                                                                               |                                                                                   | 223                                                                                 | 677                                                                                 | 680                                                                                 | 511                                                                                 | 909                                                                                 | 924                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.94                                                                              | 1.41                                                                              | 0.21                                                                              | 0.85                                                                              | 1.54                                                                              |                                                                                   | 0.14                                                                                | 0.53                                                                                | 0.46                                                                                | 0.90                                                                                | 0.91                                                                                | 0.43                                                                                |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.54

Intersection Signal Delay: 101.4

Intersection LOS: F

Intersection Capacity Utilization 89.6%

ICU Level of Service E

Analysis Period (min) 15

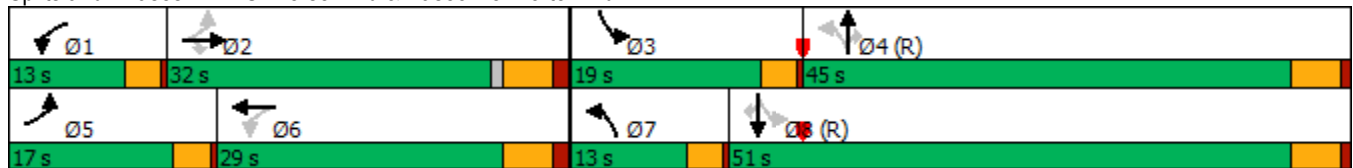
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 3.3                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 16                                                                                | 35                                                                                | 75                                                                                | 225                                                                               | 784                                                                               | 175                                                                               |
| Future Vol, veh/h        | 16                                                                                | 35                                                                                | 75                                                                                | 225                                                                               | 784                                                                               | 175                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 41                                                                                | 78                                                                                | 153                                                                               | 245                                                                               | 852                                                                               | 372                                                                               |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1403                                                                              | 852                                                                               | 1224                                                                              | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 852                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 551                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 154                                                                               | 359                                                                               | 570                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 418                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 577                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 113                                                                               | 359                                                                               | 570                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 113                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 306                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 577                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 30.3                                                                              | 5.2                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 570                                                                               | -                                                                                 | 113                                                                               | 359                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.269                                                                             | -                                                                                 | 0.363                                                                             | 0.217                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 13.6                                                                              | -                                                                                 | 54                                                                                | 17.8                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | B                                                                                 | -                                                                                 | F                                                                                 | C                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 1.1                                                                               | -                                                                                 | 1.5                                                                               | 0.8                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 299                                                                               | 0    | 0    | 819                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 299                                                                               | 0    | 0    | 819                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 325                                                                               | 0    | 0    | 890                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1215   | 325    | 0      |
| Stage 1              | 325    | -      | -      |
| Stage 2              | 890    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 200    | 716    | -      |
| Stage 1              | 732    | -      | -      |
| Stage 2              | 401    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 200    | 716    | -      |
| Mov Cap-2 Maneuver   | 200    | -      | -      |
| Stage 1              | 732    | -      | -      |
| Stage 2              | 401    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1235 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 299                                                                               | 0    | 0    | 819                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 299                                                                               | 0    | 0    | 819                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 325                                                                               | 0    | 0    | 890                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1215   | 325    | 0      |
| Stage 1              | 325    | -      | -      |
| Stage 2              | 890    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 200    | 716    | -      |
| Stage 1              | 732    | -      | -      |
| Stage 2              | 401    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 200    | 716    | -      |
| Mov Cap-2 Maneuver   | 200    | -      | -      |
| Stage 1              | 732    | -      | -      |
| Stage 2              | 401    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1235 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

| Intersection             |                                                                                   |          |                                                                                   |      |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |          |                                                                                   |      |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR  | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |      |       |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0        | 299                                                                               | 0    | 0     | 819                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0        | 299                                                                               | 0    | 0     | 819                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0    | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -    | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -    | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -    | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92   | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2    | 2     | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0        | 325                                                                               | 0    | 0     | 890                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   | Major2                                                                            |      |       |                                                                                   |
| Conflicting Flow All     | 1215                                                                              | 325      | 0                                                                                 | 0    | 325   | 0                                                                                 |
| Stage 1                  | 325                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                  | 890                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -    | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -    | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -    | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -    | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 200                                                                               | 716      | -                                                                                 | -    | 1235  | -                                                                                 |
| Stage 1                  | 732                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                  | 401                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -    |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 200                                                                               | 716      | -                                                                                 | -    | 1235  | -                                                                                 |
| Mov Cap-2 Maneuver       | 200                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 1                  | 732                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                  | 401                                                                               | -        | -                                                                                 | -    | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       | SB                                                                                |      |       |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 | 0        | 0                                                                                 |      |       |                                                                                   |
| HCM LOS                  | A                                                                                 |          |                                                                                   |      |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT  |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | -                                                                                 | 1235 | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | -                                                                                 | -    | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 0                                                                                 | 0    | -     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | A                                                                                 | A    | -     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | -                                                                                 | 0    | -     |                                                                                   |



| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 299                                                                               | 0    | 0    | 819                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 299                                                                               | 0    | 0    | 819                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 325                                                                               | 0    | 0    | 890                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1215   | 325    | 0      |
| Stage 1              | 325    | -      | -      |
| Stage 2              | 890    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 200    | 716    | -      |
| Stage 1              | 732    | -      | -      |
| Stage 2              | 401    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 200    | 716    | -      |
| Mov Cap-2 Maneuver   | 200    | -      | -      |
| Stage 1              | 732    | -      | -      |
| Stage 2              | 401    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT  |
|-----------------------|-----|----------|-----|------|
| Capacity (veh/h)      | -   | -        | -   | 1235 |
| HCM Lane V/C Ratio    | -   | -        | -   | -    |
| HCM Control Delay (s) | -   | -        | 0   | 0    |
| HCM Lane LOS          | -   | -        | A   | A    |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0    |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 3                                                                                 | 609                                                                               | 20                                                                                | 14                                                                                | 488                                                                               | 239                                                                               | 75                                                                                  | 57                                                                                  | 66                                                                                  | 758                                                                                 | 39                                                                                  | 22                                                                                  |
| Future Volume (vph)        | 3                                                                                 | 609                                                                               | 20                                                                                | 14                                                                                | 488                                                                               | 239                                                                               | 75                                                                                  | 57                                                                                  | 66                                                                                  | 758                                                                                 | 39                                                                                  | 22                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.959                                                                             |                                                                                   |                                                                                     | 0.921                                                                               |                                                                                     |                                                                                     | 0.925                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3394                                                                              | 0                                                                                 | 1770                                                                                | 1716                                                                                | 0                                                                                   | 1770                                                                                | 1723                                                                                | 0                                                                                   |
| Flt Permitted              | 0.122                                                                             |                                                                                   |                                                                                   | 0.170                                                                             |                                                                                   |                                                                                   | 0.690                                                                               |                                                                                     |                                                                                     | 0.421                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 227                                                                               | 3514                                                                              | 0                                                                                 | 317                                                                               | 3394                                                                              | 0                                                                                 | 1285                                                                                | 1716                                                                                | 0                                                                                   | 784                                                                                 | 1723                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 57                                                                                |                                                                                   |                                                                                     | 50                                                                                  |                                                                                     |                                                                                     | 49                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 6                                                                                 | 781                                                                               | 40                                                                                | 28                                                                                | 728                                                                               | 278                                                                               | 153                                                                                 | 80                                                                                  | 90                                                                                  | 871                                                                                 | 52                                                                                  | 52                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 6                                                                                 | 821                                                                               | 0                                                                                 | 28                                                                                | 1006                                                                              | 0                                                                                 | 153                                                                                 | 170                                                                                 | 0                                                                                   | 871                                                                                 | 104                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

No Build 2033 AM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)         | 16.0                                                                              | 36.0                                                                              |                                                                                   | 16.0                                                                              | 34.0                                                                              |                                                                                   | 16.0                                                                                | 24.0                                                                                |                                                                                     | 24.0                                                                                | 24.0                                                                                |                                                                                     |
| Total Split (%)         | 16.0%                                                                             | 36.0%                                                                             |                                                                                   | 16.0%                                                                             | 34.0%                                                                             |                                                                                   | 16.0%                                                                               | 24.0%                                                                               |                                                                                     | 24.0%                                                                               | 24.0%                                                                               |                                                                                     |
| Maximum Green (s)       | 12.5                                                                              | 30.5                                                                              |                                                                                   | 12.5                                                                              | 28.5                                                                              |                                                                                   | 12.5                                                                                | 18.5                                                                                |                                                                                     | 20.5                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effect Green (s)    | 36.6                                                                              | 31.9                                                                              |                                                                                   | 38.8                                                                              | 35.6                                                                              |                                                                                   | 29.1                                                                                | 18.5                                                                                |                                                                                     | 53.7                                                                                | 39.7                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.37                                                                              | 0.32                                                                              |                                                                                   | 0.39                                                                              | 0.36                                                                              |                                                                                   | 0.29                                                                                | 0.18                                                                                |                                                                                     | 0.54                                                                                | 0.40                                                                                |                                                                                     |
| v/c Ratio               | 0.04                                                                              | 0.73                                                                              |                                                                                   | 0.14                                                                              | 0.81                                                                              |                                                                                   | 0.37                                                                                | 0.47                                                                                |                                                                                     | 1.22                                                                                | 0.15                                                                                |                                                                                     |
| Control Delay           | 16.0                                                                              | 34.2                                                                              |                                                                                   | 17.9                                                                              | 32.9                                                                              |                                                                                   | 18.9                                                                                | 30.4                                                                                |                                                                                     | 133.5                                                                               | 14.2                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 16.0                                                                              | 34.2                                                                              |                                                                                   | 17.9                                                                              | 32.9                                                                              |                                                                                   | 18.9                                                                                | 30.4                                                                                |                                                                                     | 133.5                                                                               | 14.2                                                                                |                                                                                     |
| LOS                     | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                   | C                                                                                   |                                                                                     | F                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 34.1                                                                              |                                                                                   |                                                                                   | 32.5                                                                              |                                                                                   |                                                                                     | 24.9                                                                                |                                                                                     |                                                                                     | 120.8                                                                               |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     | F                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 2                                                                                 | 256                                                                               |                                                                                   | 11                                                                                | 282                                                                               |                                                                                   | 46                                                                                  | 68                                                                                  |                                                                                     | ~550                                                                                | 21                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 5                                                                                 | 236                                                                               |                                                                                   | 13                                                                                | 226                                                                               |                                                                                   | 50                                                                                  | 95                                                                                  |                                                                                     | #863                                                                                | 53                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                 |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 281                                                                               | 1148                                                                              |                                                                                   | 306                                                                               | 1251                                                                              |                                                                                   | 484                                                                                 | 358                                                                                 |                                                                                     | 714                                                                                 | 712                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.02                                                                              | 0.72                                                                              |                                                                                   | 0.09                                                                              | 0.80                                                                              |                                                                                   | 0.32                                                                                | 0.47                                                                                |                                                                                     | 1.22                                                                                | 0.15                                                                                |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 60 (60%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.22

Intersection Signal Delay: 59.4

Intersection LOS: E

Intersection Capacity Utilization 82.7%

ICU Level of Service E

Analysis Period (min) 15

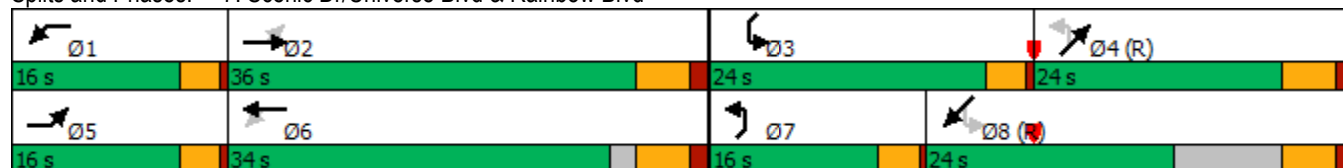
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



| Intersection             |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |        |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 | Minor1 |                                                                                   |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -      |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |        | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |        | 0                                                                                 |                                                                                   |       |
| HCM LOS                  | A                                                                                 |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -      | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -      | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -      | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -      | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0                                                                                 |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |       |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 0      | 0      | 1      | 0 | 2     | 1     |
| Stage 1              | -      | -      | -      | - | 1     | -     |
| Stage 2              | -      | -      | -      | - | 1     | -     |
| Critical Hdwy        | -      | -      | 4.12   | - | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  | -     |
| Follow-up Hdwy       | -      | -      | 2.218  | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 1622   | - | 1021  | 1084  |
| Stage 1              | -      | -      | -      | - | 1022  | -     |
| Stage 2              | -      | -      | -      | - | 1022  | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     | -     |
| Mov Cap-1 Maneuver   | -      | -      | 1622   | - | 1021  | 1084  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 1021  | -     |
| Stage 1              | -      | -      | -      | - | 1022  | -     |
| Stage 2              | -      | -      | -      | - | 1022  | -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1622 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |



Intersection

Int Delay, s/veh 0

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 0      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 0      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1022   |
| Mov Cap-2 Maneuver   | -      | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (vph)       | 308                                                                               | 375                                                                               | 8                                                                                 | 200                                                                               | 558                                                                               | 453                                                                               | 10                                                                                  | 500                                                                                 | 141                                                                                 | 218                                                                                 | 431                                                                                 | 379                                                                                 |
| Future Volume (vph)        | 308                                                                               | 375                                                                               | 8                                                                                 | 200                                                                               | 558                                                                               | 453                                                                               | 10                                                                                  | 500                                                                                 | 141                                                                                 | 218                                                                                 | 431                                                                                 | 379                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.934                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1740                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.099                                                                             |                                                                                   |                                                                                   | 0.272                                                                             |                                                                                   |                                                                                   | 0.232                                                                               |                                                                                     |                                                                                     | 0.119                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 184                                                                               | 1863                                                                              | 1583                                                                              | 507                                                                               | 1740                                                                              | 0                                                                                 | 432                                                                                 | 1863                                                                                | 1583                                                                                | 222                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 89                                                                                |                                                                                   | 40                                                                                |                                                                                   |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 371                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.73                                                                              | 0.81                                                                              | 0.62                                                                              | 0.80                                                                              | 0.91                                                                              | 0.95                                                                              | 0.75                                                                                | 0.85                                                                                | 0.81                                                                                | 0.79                                                                                | 0.81                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 422                                                                               | 463                                                                               | 13                                                                                | 250                                                                               | 613                                                                               | 477                                                                               | 13                                                                                  | 588                                                                                 | 174                                                                                 | 276                                                                                 | 532                                                                                 | 399                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 422                                                                               | 463                                                                               | 13                                                                                | 250                                                                               | 1090                                                                              | 0                                                                                 | 13                                                                                  | 588                                                                                 | 174                                                                                 | 276                                                                                 | 532                                                                                 | 399                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 15.0  | 45.0  | 45.0  | 15.0  | 45.0  |     | 15.0  | 35.0  | 35.0  | 15.0  | 35.0  | 35.0  |
| Total Split (%)         | 13.6% | 40.9% | 40.9% | 13.6% | 40.9% |     | 13.6% | 31.8% | 31.8% | 13.6% | 31.8% | 31.8% |
| Maximum Green (s)       | 11.5  | 39.5  | 39.5  | 11.5  | 39.5  |     | 11.5  | 30.0  | 30.0  | 11.5  | 30.0  | 30.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | Min   | Min   | None  | Min   |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 53.8  | 40.3  | 40.3  | 52.2  | 39.5  |     | 36.0  | 30.0  | 30.0  | 46.5  | 41.6  | 41.6  |
| Actuated g/C Ratio      | 0.49  | 0.37  | 0.37  | 0.47  | 0.36  |     | 0.33  | 0.27  | 0.27  | 0.42  | 0.38  | 0.38  |
| v/c Ratio               | 1.65  | 0.68  | 0.02  | 0.69  | 1.68  |     | 0.07  | 1.16  | 0.35  | 1.08  | 0.76  | 0.48  |
| Control Delay           | 335.2 | 35.8  | 0.0   | 26.3  | 337.5 |     | 19.8  | 128.3 | 17.2  | 107.7 | 39.2  | 6.0   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 335.2 | 35.8  | 0.0   | 26.3  | 337.5 |     | 19.8  | 128.3 | 17.2  | 107.7 | 39.2  | 6.0   |
| LOS                     | F     | D     | A     | C     | F     |     | B     | F     | B     | F     | D     | A     |
| Approach Delay          |       | 176.0 |       |       | 279.5 |     |       | 101.5 |       |       | 43.9  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | F     |       |       | D     |       |
| Queue Length 50th (ft)  | ~386  | 276   | 0     | 96    | ~1119 |     | 5     | ~492  | 43    | ~165  | 305   | 12    |
| Queue Length 95th (ft)  | #426  | 340   | 0     | 129   | #1375 |     | 14    | #648  | 84    | #262  | 425   | 88    |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 255   | 681   | 635   | 376   | 650   |     | 308   | 508   | 500   | 255   | 704   | 828   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 1.65  | 0.68  | 0.02  | 0.66  | 1.68  |     | 0.04  | 1.16  | 0.35  | 1.08  | 0.76  | 0.48  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 48 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.68

Intersection Signal Delay: 157.4

Intersection LOS: F

Intersection Capacity Utilization 127.9%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.3                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 3                                                                                 | 6                                                                                 | 2                                                                                 | 630                                                                               | 376                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 3                                                                                 | 6                                                                                 | 2                                                                                 | 630                                                                               | 376                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 6                                                                                 | 18                                                                                | 8                                                                                 | 685                                                                               | 404                                                                               | 0                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1105                                                                              | 404                                                                               | 404                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 404                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 701                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 233                                                                               | 647                                                                               | 1155                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 674                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 492                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 231                                                                               | 647                                                                               | 1155                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 231                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 669                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 492                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 13.3                                                                              | 0.1                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1155                                                                              | -                                                                                 | 231                                                                               | 647                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.007                                                                             | -                                                                                 | 0.026                                                                             | 0.028                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 8.1                                                                               | -                                                                                 | 21                                                                                | 10.7                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | 0.1                                                                               | 0.1                                                                               | -                                                                                 | -                                                                                 |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 631                                                                               | 0    | 0    | 382                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 631                                                                               | 0    | 0    | 382                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 686                                                                               | 0    | 0    | 415                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1101   | 686    | 0      |
| Stage 1              | 686    | -      | -      |
| Stage 2              | 415    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 235    | 447    | -      |
| Stage 1              | 500    | -      | -      |
| Stage 2              | 666    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 235    | 447    | -      |
| Mov Cap-2 Maneuver   | 235    | -      | -      |
| Stage 1              | 500    | -      | -      |
| Stage 2              | 666    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-----|-----|
| Capacity (veh/h)      | -   | -        | -   | 908 |
| HCM Lane V/C Ratio    | -   | -        | -   | -   |
| HCM Control Delay (s) | -   | -        | 0   | 0   |
| HCM Lane LOS          | -   | -        | A   | A   |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 631                                                                               | 0    | 0    | 382                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 631                                                                               | 0    | 0    | 382                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 686                                                                               | 0    | 0    | 415                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1101   | 686    | 0      |
| Stage 1              | 686    | -      | -      |
| Stage 2              | 415    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 235    | 447    | -      |
| Stage 1              | 500    | -      | -      |
| Stage 2              | 666    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 235    | 447    | -      |
| Mov Cap-2 Maneuver   | 235    | -      | -      |
| Stage 1              | 500    | -      | -      |
| Stage 2              | 666    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-----|-----|
| Capacity (veh/h)      | -   | -        | -   | 908 |
| HCM Lane V/C Ratio    | -   | -        | -   | -   |
| HCM Control Delay (s) | -   | -        | 0   | 0   |
| HCM Lane LOS          | -   | -        | A   | A   |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0   |



Intersection

Int Delay, s/veh 0

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 631                                                                               | 0    | 0    | 382                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 631                                                                               | 0    | 0    | 382                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 686                                                                               | 0    | 0    | 415                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1101   | 686    | 0      |
| Stage 1              | 686    | -      | -      |
| Stage 2              | 415    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 235    | 447    | -      |
| Stage 1              | 500    | -      | -      |
| Stage 2              | 666    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 235    | 447    | -      |
| Mov Cap-2 Maneuver   | 235    | -      | -      |
| Stage 1              | 500    | -      | -      |
| Stage 2              | 666    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-----|-----|
| Capacity (veh/h)      | -   | -        | -   | 908 |
| HCM Lane V/C Ratio    | -   | -        | -   | -   |
| HCM Control Delay (s) | -   | -        | 0   | 0   |
| HCM Lane LOS          | -   | -        | A   | A   |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0                                                                                 |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 631                                                                               | 0    | 0    | 382                                                                               |
| Future Vol, veh/h        | 0                                                                                 | 0    | 631                                                                               | 0    | 0    | 382                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 0    | 686                                                                               | 0    | 0    | 415                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1101   | 686    | 0      |
| Stage 1              | 686    | -      | -      |
| Stage 2              | 415    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 235    | 447    | -      |
| Stage 1              | 500    | -      | -      |
| Stage 2              | 666    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 235    | 447    | -      |
| Mov Cap-2 Maneuver   | 235    | -      | -      |
| Stage 1              | 500    | -      | -      |
| Stage 2              | 666    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-----|-----|
| Capacity (veh/h)      | -   | -        | -   | 908 |
| HCM Lane V/C Ratio    | -   | -        | -   | -   |
| HCM Control Delay (s) | -   | -        | 0   | 0   |
| HCM Lane LOS          | -   | -        | A   | A   |
| HCM 95th %tile Q(veh) | -   | -        | -   | 0   |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 3                                                                                 | 338                                                                               | 14                                                                                | 82                                                                                | 516                                                                               | 562                                                                               | 14                                                                                  | 67                                                                                  | 48                                                                                  | 315                                                                                 | 64                                                                                  | 3                                                                                   |
| Future Volume (vph)        | 3                                                                                 | 338                                                                               | 14                                                                                | 82                                                                                | 516                                                                               | 562                                                                               | 14                                                                                  | 67                                                                                  | 48                                                                                  | 315                                                                                 | 64                                                                                  | 3                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.994                                                                             |                                                                                   |                                                                                   | 0.921                                                                             |                                                                                   |                                                                                     | 0.941                                                                               |                                                                                     |                                                                                     | 0.991                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3518                                                                              | 0                                                                                 | 1770                                                                              | 3260                                                                              | 0                                                                                 | 1770                                                                                | 1753                                                                                | 0                                                                                   | 1770                                                                                | 1846                                                                                | 0                                                                                   |
| Flt Permitted              | 0.144                                                                             |                                                                                   |                                                                                   | 0.314                                                                             |                                                                                   |                                                                                   | 0.690                                                                               |                                                                                     |                                                                                     | 0.563                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 268                                                                               | 3518                                                                              | 0                                                                                 | 585                                                                               | 3260                                                                              | 0                                                                                 | 1285                                                                                | 1753                                                                                | 0                                                                                   | 1049                                                                                | 1846                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 290                                                                               |                                                                                   |                                                                                     | 34                                                                                  |                                                                                     |                                                                                     | 4                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 6                                                                                 | 520                                                                               | 23                                                                                | 96                                                                                | 573                                                                               | 639                                                                               | 23                                                                                  | 86                                                                                  | 56                                                                                  | 375                                                                                 | 97                                                                                  | 6                                                                                   |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 6                                                                                 | 543                                                                               | 0                                                                                 | 96                                                                                | 1212                                                                              | 0                                                                                 | 23                                                                                  | 142                                                                                 | 0                                                                                   | 375                                                                                 | 103                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |



| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 27.3% | 27.3% |     |
| Maximum Green (s)       | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 31.1  | 25.6  |     | 36.5  | 32.9  |     | 30.1  | 23.5  |     | 44.5  | 39.0  |     |
| Actuated g/C Ratio      | 0.35  | 0.29  |     | 0.41  | 0.37  |     | 0.34  | 0.27  |     | 0.51  | 0.44  |     |
| v/c Ratio               | 0.04  | 0.53  |     | 0.29  | 0.87  |     | 0.05  | 0.29  |     | 0.57  | 0.13  |     |
| Control Delay           | 16.0  | 29.2  |     | 18.4  | 28.1  |     | 12.9  | 22.7  |     | 17.6  | 15.8  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 16.0  | 29.2  |     | 18.4  | 28.1  |     | 12.9  | 22.7  |     | 17.6  | 15.8  |     |
| LOS                     | B     | C     |     | B     | C     |     | B     | C     |     | B     | B     |     |
| Approach Delay          |       | 29.0  |     |       | 27.4  |     |       | 21.3  |     |       | 17.2  |     |
| Approach LOS            |       | C     |     |       | C     |     |       | C     |     |       | B     |     |
| Queue Length 50th (ft)  | 2     | 134   |     | 32    | 244   |     | 6     | 47    |     | 124   | 29    |     |
| Queue Length 95th (ft)  | 5     | 131   |     | 59    | #448  |     | 12    | 86    |     | 174   | 49    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 324   | 1028  |     | 410   | 1399  |     | 623   | 492   |     | 698   | 820   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.02  | 0.53  |     | 0.23  | 0.87  |     | 0.04  | 0.29  |     | 0.54  | 0.13  |     |

## Intersection Summary

Area Type: Other

Cycle Length: 88

Actuated Cycle Length: 88

Offset: 48 (55%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 25.4

Intersection LOS: C

Intersection Capacity Utilization 72.3%

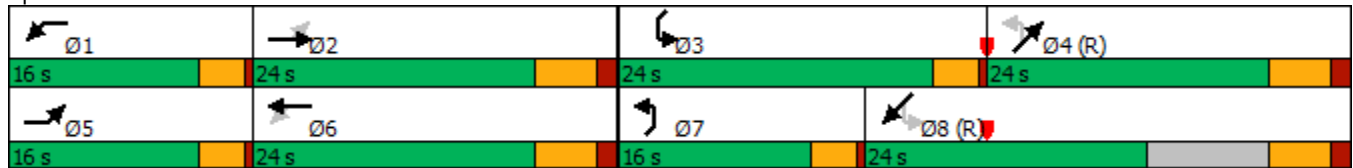
ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  | A                                                                                 |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1      | 0                                                                                 | 2                                                                                 | 1     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1622   | -                                                                                 | 1021                                                                              | 1084  |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 1021                                                                              | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1022                                                                              | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 0                                                                                 |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | -                                                                                 | -    | -      | 1622                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | -                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0                                                                                 |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | 1622   | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1622   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | -     | -   | -   | 1622 | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -    | -   |
| HCM Control Delay (s) | 0     | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 0

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Future Vol, veh/h        | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 0      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 0      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1022   |
| Mov Cap-2 Maneuver   | -      | -      | 1022   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |

# **APPENDIX O**

## **Horizon 2033 – Build Synchro Reports**

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 229                                                                               | 538                                                                               | 87                                                                                | 134                                                                               | 244                                                                               | 187                                                                               | 16                                                                                  | 290                                                                                 | 227                                                                                 | 401                                                                                 | 651                                                                                 | 347                                                                                 |
| Future Volume (vph)        | 229                                                                               | 538                                                                               | 87                                                                                | 134                                                                               | 244                                                                               | 187                                                                               | 16                                                                                  | 290                                                                                 | 227                                                                                 | 401                                                                                 | 651                                                                                 | 347                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.937                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1745                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.148                                                                             |                                                                                   |                                                                                   | 0.170                                                                             |                                                                                   |                                                                                   | 0.100                                                                               |                                                                                     |                                                                                     | 0.338                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 276                                                                               | 1863                                                                              | 1583                                                                              | 317                                                                               | 1745                                                                              | 0                                                                                 | 186                                                                                 | 1863                                                                                | 1583                                                                                | 630                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 124                                                                               |                                                                                   | 30                                                                                |                                                                                   |                                                                                     |                                                                                     | 164                                                                                 |                                                                                     |                                                                                     | 292                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                                | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 273                                                                               | 656                                                                               | 110                                                                               | 220                                                                               | 354                                                                               | 256                                                                               | 36                                                                                  | 367                                                                                 | 385                                                                                 | 461                                                                                 | 835                                                                                 | 394                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 273                                                                               | 656                                                                               | 110                                                                               | 220                                                                               | 610                                                                               | 0                                                                                 | 36                                                                                  | 367                                                                                 | 385                                                                                 | 461                                                                                 | 835                                                                                 | 394                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 17.0  | 32.0  | 32.0  | 13.0  | 29.0  |     | 13.0  | 45.0  | 45.0  | 19.0  | 51.0  | 51.0  |
| Total Split (%)         | 15.5% | 29.1% | 29.1% | 11.8% | 26.4% |     | 11.8% | 40.9% | 40.9% | 17.3% | 46.4% | 46.4% |
| Maximum Green (s)       | 13.5  | 26.5  | 26.5  | 9.5   | 23.5  |     | 9.5   | 40.0  | 40.0  | 15.5  | 46.0  | 46.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | None  | None  | None  | None  |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 42.5  | 27.5  | 27.5  | 35.0  | 23.5  |     | 46.6  | 40.0  | 40.0  | 60.5  | 53.5  | 53.5  |
| Actuated g/C Ratio      | 0.39  | 0.25  | 0.25  | 0.32  | 0.21  |     | 0.42  | 0.36  | 0.36  | 0.55  | 0.49  | 0.49  |
| v/c Ratio               | 0.94  | 1.41  | 0.23  | 0.97  | 1.54  |     | 0.24  | 0.54  | 0.57  | 0.91  | 0.92  | 0.43  |
| Control Delay           | 68.8  | 230.4 | 5.7   | 82.5  | 286.0 |     | 16.4  | 31.4  | 19.2  | 41.2  | 44.3  | 6.8   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 68.8  | 230.4 | 5.7   | 82.5  | 286.0 |     | 16.4  | 31.4  | 19.2  | 41.2  | 44.3  | 6.8   |
| LOS                     | E     | F     | A     | F     | F     |     | B     | C     | B     | D     | D     | A     |
| Approach Delay          |       | 164.2 |       |       | 232.1 |     |       | 24.8  |       |       | 34.7  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | C     |       |       | C     |       |
| Queue Length 50th (ft)  | 138   | ~623  | 0     | 107   | ~594  |     | 11    | 203   | 121   | 188   | 563   | 41    |
| Queue Length 95th (ft)  | #263  | #741  | 22    | 107   | #551  |     | 13    | 250   | 88    | #329  | #657  | 105   |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 289   | 465   | 488   | 226   | 396   |     | 223   | 677   | 680   | 507   | 906   | 920   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 0.94  | 1.41  | 0.23  | 0.97  | 1.54  |     | 0.16  | 0.54  | 0.57  | 0.91  | 0.92  | 0.43  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.54

Intersection Signal Delay: 101.5

Intersection LOS: F

Intersection Capacity Utilization 90.0%

ICU Level of Service E

Analysis Period (min) 15

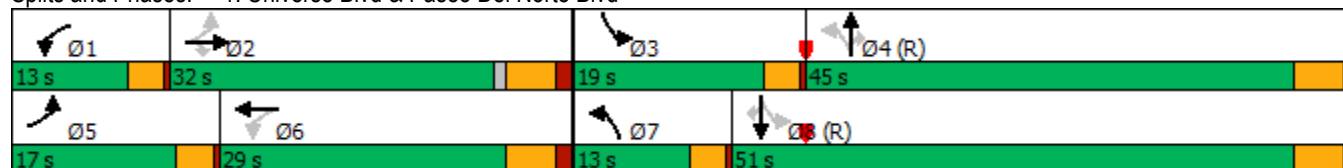
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 3.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 16                                                                                | 39                                                                                | 81                                                                                | 291                                                                               | 823                                                                               | 175                                                                               |
| Future Vol, veh/h        | 16                                                                                | 39                                                                                | 81                                                                                | 291                                                                               | 823                                                                               | 175                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 41                                                                                | 87                                                                                | 165                                                                               | 316                                                                               | 895                                                                               | 372                                                                               |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1541                                                                              | 895                                                                               | 1267                                                                              | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 895                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 646                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 127                                                                               | 339                                                                               | 548                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 399                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 522                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 89                                                                                | 339                                                                               | 548                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 89                                                                                | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 279                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 522                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 37.5                                                                              | 4.9                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 548                                                                               | -                                                                                 | 89                                                                                | 339                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.302                                                                             | -                                                                                 | 0.461                                                                             | 0.256                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 14.4                                                                              | -                                                                                 | 76.2                                                                              | 19.2                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | B                                                                                 | -                                                                                 | F                                                                                 | C                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 1.3                                                                               | -                                                                                 | 1.9                                                                               | 1                                                                                 | -                                                                                 | -                                                                                 |



| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.9                                                                               |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 15                                                                                | 34   | 337                                                                               | 19   | 28   | 834                                                                               |
| Future Vol, veh/h        | 15                                                                                | 34   | 337                                                                               | 19   | 28   | 834                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 16                                                                                | 37   | 366                                                                               | 21   | 30   | 907                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1344   | 377    | 0      |
| Stage 1              | 377    | -      | -      |
| Stage 2              | 967    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 167    | 670    | -      |
| Stage 1              | 694    | -      | -      |
| Stage 2              | 369    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 158    | 670    | -      |
| Mov Cap-2 Maneuver   | 158    | -      | -      |
| Stage 1              | 694    | -      | -      |
| Stage 2              | 350    | -      | -      |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 17.7 | 0  | 0.3 |
| HCM LOS              | C    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 336   | 1171  |
| HCM Lane V/C Ratio    | -   | -        | 0.159 | 0.026 |
| HCM Control Delay (s) | -   | -        | 17.7  | 8.2   |
| HCM Lane LOS          | -   | -        | C     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.6   | 0.1   |

| Intersection             |                                                                                   |        |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.8                                                                               |        |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR    | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |        |  |        |       |  |
| Traffic Vol, veh/h       | 19                                                                                | 23     | 333                                                                               | 18     | 21    | 828                                                                               |
| Future Vol, veh/h        | 19                                                                                | 23     | 333                                                                               | 18     | 21    | 828                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop   | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None   | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -      | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -      | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -      | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92     | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 21                                                                                | 25     | 362                                                                               | 20     | 23    | 900                                                                               |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1 |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1318                                                                              | 372    | 0                                                                                 | 0      | 382   | 0                                                                                 |
| Stage 1                  | 372                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 946                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22   | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -      | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -      | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318  | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 173                                                                               | 674    | -                                                                                 | -      | 1176  | -                                                                                 |
| Stage 1                  | 697                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 377                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |        | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 166                                                                               | 674    | -                                                                                 | -      | 1176  | -                                                                                 |
| Mov Cap-2 Maneuver       | 166                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 697                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 362                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB     |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 20.2                                                                              | 0      |                                                                                   | 0.2    |       |                                                                                   |
| HCM LOS                  | C                                                                                 |        |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    |                                                                                   | NBT    | NBRWBLn1                                                                          | SBL    | SBT   |                                                                                   |
| Capacity (veh/h)         |                                                                                   | -      | -                                                                                 | 283    | 1176  | -                                                                                 |
| HCM Lane V/C Ratio       |                                                                                   | -      | -                                                                                 | 0.161  | 0.019 | -                                                                                 |
| HCM Control Delay (s)    |                                                                                   | -      | -                                                                                 | 20.2   | 8.1   | 0                                                                                 |
| HCM Lane LOS             |                                                                                   | -      | -                                                                                 | C      | A     | A                                                                                 |
| HCM 95th %tile Q(veh)    |                                                                                   | -      | -                                                                                 | 0.6    | 0.1   | -                                                                                 |

| Intersection             |                                                                                   |          |                                                                                   |       |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|-------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.1                                                                               |          |                                                                                   |       |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR   | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |       |       |  |
| Traffic Vol, veh/h       | 30                                                                                | 26       | 325                                                                               | 11    | 8     | 839                                                                               |
| Future Vol, veh/h        | 30                                                                                | 26       | 325                                                                               | 11    | 8     | 839                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0     | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free  | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None  | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -     | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -     | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -     | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92    | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2     | 2     | 2                                                                                 |
| Mvmt Flow                | 33                                                                                | 28       | 353                                                                               | 12    | 9     | 912                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   | Major2                                                                            |       |       |                                                                                   |
| Conflicting Flow All     | 1289                                                                              | 359      | 0                                                                                 | 0     | 365   | 0                                                                                 |
| Stage 1                  | 359                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 930                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -     | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -     | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -     | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 181                                                                               | 685      | -                                                                                 | -     | 1194  | -                                                                                 |
| Stage 1                  | 707                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 384                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -     |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 178                                                                               | 685      | -                                                                                 | -     | 1194  | -                                                                                 |
| Mov Cap-2 Maneuver       | 178                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 1                  | 707                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 378                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       | SB                                                                                |       |       |                                                                                   |
| HCM Control Delay, s     | 22.1                                                                              | 0        | 0.1                                                                               |       |       |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |       |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT   |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 271                                                                               | 1194  | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.225                                                                             | 0.007 | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 22.1                                                                              | 8     | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A     | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.8                                                                               | 0     | -     |                                                                                   |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.1                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 4                                                                                 | 5        | 331                                                                               | 1      | 2     | 867                                                                               |
| Future Vol, veh/h        | 4                                                                                 | 5        | 331                                                                               | 1      | 2     | 867                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 4                                                                                 | 5        | 360                                                                               | 1      | 2     | 942                                                                               |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1307                                                                              | 361      | 0                                                                                 | 0      | 361   | 0                                                                                 |
| Stage 1                  | 361                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 946                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 176                                                                               | 684      | -                                                                                 | -      | 1198  | -                                                                                 |
| Stage 1                  | 705                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 377                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 175                                                                               | 684      | -                                                                                 | -      | 1198  | -                                                                                 |
| Mov Cap-2 Maneuver       | 175                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 705                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 375                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 17.5                                                                              | 0        |                                                                                   | 0      |       |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 298                                                                               | 1198   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.033                                                                             | 0.002  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 17.5                                                                              | 8      | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.1                                                                               | 0      | -     |                                                                                   |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 7                                                                                 | 609                                                                               | 20                                                                                | 14                                                                                | 488                                                                               | 264                                                                               | 75                                                                                  | 61                                                                                  | 66                                                                                  | 805                                                                                 | 42                                                                                  | 24                                                                                  |
| Future Volume (vph)        | 7                                                                                 | 609                                                                               | 20                                                                                | 14                                                                                | 488                                                                               | 264                                                                               | 75                                                                                  | 61                                                                                  | 66                                                                                  | 805                                                                                 | 42                                                                                  | 24                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.956                                                                             |                                                                                   |                                                                                     | 0.923                                                                               |                                                                                     |                                                                                     | 0.924                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3383                                                                              | 0                                                                                 | 1770                                                                                | 1719                                                                                | 0                                                                                   | 1770                                                                                | 1721                                                                                | 0                                                                                   |
| Flt Permitted              | 0.115                                                                             |                                                                                   |                                                                                   | 0.187                                                                             |                                                                                   |                                                                                   | 0.684                                                                               |                                                                                     |                                                                                     | 0.417                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 214                                                                               | 3514                                                                              | 0                                                                                 | 348                                                                               | 3383                                                                              | 0                                                                                 | 1274                                                                                | 1719                                                                                | 0                                                                                   | 777                                                                                 | 1721                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 67                                                                                |                                                                                   |                                                                                     | 46                                                                                  |                                                                                     |                                                                                     | 50                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 14                                                                                | 781                                                                               | 40                                                                                | 28                                                                                | 728                                                                               | 307                                                                               | 153                                                                                 | 86                                                                                  | 90                                                                                  | 925                                                                                 | 56                                                                                  | 57                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 14                                                                                | 821                                                                               | 0                                                                                 | 28                                                                                | 1035                                                                              | 0                                                                                 | 153                                                                                 | 176                                                                                 | 0                                                                                   | 925                                                                                 | 113                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

Build 2033 AM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022



| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 36.0  |     | 16.0  | 34.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 16.0% | 36.0% |     | 16.0% | 34.0% |     | 16.0% | 24.0% |     | 24.0% | 24.0% |     |
| Maximum Green (s)       | 12.5  | 30.5  |     | 12.5  | 28.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 39.0  | 34.1  |     | 40.3  | 36.0  |     | 29.3  | 18.5  |     | 51.6  | 37.3  |     |
| Actuated g/C Ratio      | 0.39  | 0.34  |     | 0.40  | 0.36  |     | 0.29  | 0.18  |     | 0.52  | 0.37  |     |
| v/c Ratio               | 0.09  | 0.68  |     | 0.13  | 0.82  |     | 0.37  | 0.50  |     | 1.37  | 0.17  |     |
| Control Delay           | 15.7  | 31.3  |     | 16.4  | 33.2  |     | 19.5  | 32.2  |     | 199.0 | 15.7  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 15.7  | 31.3  |     | 16.4  | 33.2  |     | 19.5  | 32.2  |     | 199.0 | 15.7  |     |
| LOS                     | B     | C     |     | B     | C     |     | B     | C     |     | F     | B     |     |
| Approach Delay          |       | 31.1  |     |       | 32.8  |     |       | 26.3  |     |       | 179.0 |     |
| Approach LOS            |       | C     |     |       | C     |     |       | C     |     |       | F     |     |
| Queue Length 50th (ft)  | 5     | 252   |     | 11    | 286   |     | 47    | 74    |     | ~637  | 25    |     |
| Queue Length 95th (ft)  | 8     | 236   |     | 13    | 233   |     | 50    | 101   |     | #940  | 57    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 283   | 1210  |     | 321   | 1260  |     | 482   | 355   |     | 675   | 673   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.05  | 0.68  |     | 0.09  | 0.82  |     | 0.32  | 0.50  |     | 1.37  | 0.17  |     |

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 60 (60%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.37

Intersection Signal Delay: 78.2

Intersection LOS: E

Intersection Capacity Utilization 86.3%

ICU Level of Service E

Analysis Period (min) 15

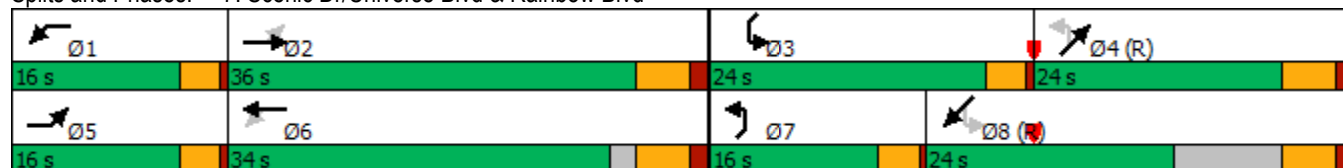
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd





Intersection

Int Delay, s/veh 2.3

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 14                                                                                | 33   | 0    | 30                                                                                | 19                                                                                | 8    |
| Future Vol, veh/h        | 14                                                                                | 33   | 0    | 30                                                                                | 19                                                                                | 8    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 15                                                                                | 36   | 0    | 33                                                                                | 21                                                                                | 9    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 51     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1555   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1555   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.8 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 967   | -   | -   | 1555 | -   |
| HCM Lane V/C Ratio    | 0.03  | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.8   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 3

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 7                                                                                 | 7    | 0    | 15                                                                                | 15                                                                                | 0    |
| Future Vol, veh/h        | 7                                                                                 | 7    | 0    | 15                                                                                | 15                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 8                                                                                 | 8    | 0    | 16                                                                                | 16                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 16     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1602   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1602   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.7 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 987   | -   | -   | 1602 | -   |
| HCM Lane V/C Ratio    | 0.017 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.7   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 5.6

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 7    | 0    | 0                                                                                 | 15                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 7    | 0    | 0                                                                                 | 15                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 8    | 0    | 0                                                                                 | 16                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 8      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1612   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1612   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.6 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 1017  | -   | -   | 1612 | -   |
| HCM Lane V/C Ratio    | 0.016 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.6   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 7.5

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 3    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 9    |
| Future Vol, veh/h        | 3    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 9    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 3    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 10   |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1      | 0      | 7      |
| Stage 1              | -      | -      | 1      |
| Stage 2              | -      | -      | 6      |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1622   | -      | 1014   |
| Stage 1              | -      | -      | 1022   |
| Stage 2              | -      | -      | 1017   |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1622   | -      | 1012   |
| Mov Cap-2 Maneuver   | -      | -      | 1012   |
| Stage 1              | -      | -      | 1020   |
| Stage 2              | -      | -      | 1017   |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 7.2 | 0  | 8.4 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622  | -   | -   | -   | 1084  |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.009 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 308                                                                               | 375                                                                               | 17                                                                                | 236                                                                               | 558                                                                               | 453                                                                               | 19                                                                                  | 512                                                                                 | 168                                                                                 | 218                                                                                 | 446                                                                                 | 379                                                                                 |
| Future Volume (vph)        | 308                                                                               | 375                                                                               | 17                                                                                | 236                                                                               | 558                                                                               | 453                                                                               | 19                                                                                  | 512                                                                                 | 168                                                                                 | 218                                                                                 | 446                                                                                 | 379                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.934                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1740                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.101                                                                             |                                                                                   |                                                                                   | 0.262                                                                             |                                                                                   |                                                                                   | 0.176                                                                               |                                                                                     |                                                                                     | 0.119                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 188                                                                               | 1863                                                                              | 1583                                                                              | 488                                                                               | 1740                                                                              | 0                                                                                 | 328                                                                                 | 1863                                                                                | 1583                                                                                | 222                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 89                                                                                |                                                                                   | 40                                                                                |                                                                                   |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 358                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.73                                                                              | 0.81                                                                              | 0.62                                                                              | 0.80                                                                              | 0.91                                                                              | 0.95                                                                              | 0.75                                                                                | 0.85                                                                                | 0.81                                                                                | 0.79                                                                                | 0.81                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 422                                                                               | 463                                                                               | 27                                                                                | 295                                                                               | 613                                                                               | 477                                                                               | 25                                                                                  | 602                                                                                 | 207                                                                                 | 276                                                                                 | 551                                                                                 | 399                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 422                                                                               | 463                                                                               | 27                                                                                | 295                                                                               | 1090                                                                              | 0                                                                                 | 25                                                                                  | 602                                                                                 | 207                                                                                 | 276                                                                                 | 551                                                                                 | 399                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



| Lane Group              | EBL   | EBT   | EBR   | WBL   | WBT   | WBR | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|-------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Detector Phase          | 5     | 2     | 2     | 1     | 6     |     | 7     | 4     | 4     | 3     | 8     | 8     |
| Switch Phase            |       |       |       |       |       |     |       |       |       |       |       |       |
| Minimum Initial (s)     | 3.0   | 20.0  | 20.0  | 3.0   | 20.0  |     | 3.0   | 16.0  | 16.0  | 3.0   | 16.0  | 16.0  |
| Minimum Split (s)       | 9.5   | 34.5  | 34.5  | 9.5   | 25.5  |     | 9.5   | 23.0  | 23.0  | 9.5   | 23.0  | 23.0  |
| Total Split (s)         | 15.0  | 45.0  | 45.0  | 15.0  | 45.0  |     | 15.0  | 35.0  | 35.0  | 15.0  | 35.0  | 35.0  |
| Total Split (%)         | 13.6% | 40.9% | 40.9% | 13.6% | 40.9% |     | 13.6% | 31.8% | 31.8% | 13.6% | 31.8% | 31.8% |
| Maximum Green (s)       | 11.5  | 39.5  | 39.5  | 11.5  | 39.5  |     | 11.5  | 30.0  | 30.0  | 11.5  | 30.0  | 30.0  |
| Yellow Time (s)         | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   |     | 3.0   | 4.0   | 4.0   | 3.0   | 4.0   | 4.0   |
| All-Red Time (s)        | 0.5   | 1.5   | 1.5   | 0.5   | 1.5   |     | 0.5   | 1.0   | 1.0   | 0.5   | 1.0   | 1.0   |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 3.5   | 5.5   | 5.5   | 3.5   | 5.5   |     | 3.5   | 5.0   | 5.0   | 3.5   | 5.0   | 5.0   |
| Lead/Lag                | Lead  | Lag   | Lag   | Lead  | Lag   |     | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes   | Yes   | Yes   | Yes   | Yes   |     | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Vehicle Extension (s)   | 1.5   | 3.0   | 3.0   | 1.5   | 3.0   |     | 1.5   | 2.0   | 2.0   | 1.5   | 2.0   | 2.0   |
| Recall Mode             | None  | Min   | Min   | None  | Min   |     | None  | C-Max | C-Max | None  | C-Max | C-Max |
| Walk Time (s)           |       | 7.0   | 7.0   |       | 7.0   |     |       | 7.0   | 7.0   |       | 7.0   | 7.0   |
| Flash Dont Walk (s)     |       | 22.0  | 22.0  |       | 12.0  |     |       | 7.0   | 7.0   |       | 9.0   | 9.0   |
| Pedestrian Calls (#/hr) |       | 0     | 0     |       | 0     |     |       | 0     | 0     |       | 0     | 0     |
| Act Effect Green (s)    | 53.2  | 39.7  | 39.7  | 52.8  | 39.5  |     | 36.5  | 30.0  | 30.0  | 46.5  | 39.6  | 39.6  |
| Actuated g/C Ratio      | 0.48  | 0.36  | 0.36  | 0.48  | 0.36  |     | 0.33  | 0.27  | 0.27  | 0.42  | 0.36  | 0.36  |
| v/c Ratio               | 1.65  | 0.69  | 0.04  | 0.81  | 1.68  |     | 0.14  | 1.19  | 0.41  | 1.08  | 0.82  | 0.50  |
| Control Delay           | 334.6 | 36.4  | 0.1   | 35.5  | 337.5 |     | 21.0  | 138.4 | 20.3  | 107.7 | 45.0  | 6.9   |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Delay             | 334.6 | 36.4  | 0.1   | 35.5  | 337.5 |     | 21.0  | 138.4 | 20.3  | 107.7 | 45.0  | 6.9   |
| LOS                     | F     | D     | A     | D     | F     |     | C     | F     | C     | F     | D     | A     |
| Approach Delay          |       | 173.3 |       |       | 273.2 |     |       | 105.6 |       |       | 46.7  |       |
| Approach LOS            |       | F     |       |       | F     |     |       | F     |       |       | D     |       |
| Queue Length 50th (ft)  | ~383  | 276   | 0     | 117   | ~1119 |     | 10    | ~513  | 63    | ~165  | 366   | 20    |
| Queue Length 95th (ft)  | #424  | 340   | 0     | 152   | #1375 |     | 22    | #669  | 109   | #262  | #482  | 100   |
| Internal Link Dist (ft) |       | 127   |       |       | 462   |     |       | 201   |       |       | 642   |       |
| Turn Bay Length (ft)    |       |       | 120   | 140   |       |     | 130   |       | 20    | 495   |       | 255   |
| Base Capacity (vph)     | 255   | 671   | 628   | 369   | 650   |     | 278   | 508   | 500   | 255   | 670   | 799   |
| Starvation Cap Reductn  | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |     | 0     | 0     | 0     | 0     | 0     | 0     |
| Reduced v/c Ratio       | 1.65  | 0.69  | 0.04  | 0.80  | 1.68  |     | 0.09  | 1.19  | 0.41  | 1.08  | 0.82  | 0.50  |

## Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 48 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.68

Intersection Signal Delay: 156.5

Intersection LOS: F

Intersection Capacity Utilization 128.5%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 15 s                                                                                 | 45 s                                                                                 | 15 s                                                                                 | 35 s                                                                                       |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 3                                                                                 | 12                                                                                | 10                                                                                | 690                                                                               | 452                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 3                                                                                 | 12                                                                                | 10                                                                                | 690                                                                               | 452                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 6                                                                                 | 36                                                                                | 40                                                                                | 750                                                                               | 486                                                                               | 0                                                                                 |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1316                                                                              | 486                                                                               | 486                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 486                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 830                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 174                                                                               | 581                                                                               | 1077                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 618                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 428                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 168                                                                               | 581                                                                               | 1077                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 168                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 595                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 428                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 13.8                                                                              | 0.4                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1077                                                                              | -                                                                                 | 168                                                                               | 581                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.037                                                                             | -                                                                                 | 0.036                                                                             | 0.063                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 8.5                                                                               | -                                                                                 | 27.2                                                                              | 11.6                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | D                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.1                                                                               | -                                                                                 | 0.1                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 |

Intersection

Int Delay, s/veh 1.7

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 26                                                                                | 42   | 657                                                                               | 30   | 50   | 414                                                                               |
| Future Vol, veh/h        | 26                                                                                | 42   | 657                                                                               | 30   | 50   | 414                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 28                                                                                | 46   | 714                                                                               | 33   | 54   | 450                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1289   | 731    | 0      |
| Stage 1              | 731    | -      | -      |
| Stage 2              | 558    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 181    | 422    | -      |
| Stage 1              | 476    | -      | -      |
| Stage 2              | 573    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 166    | 422    | -      |
| Mov Cap-2 Maneuver   | 166    | -      | -      |
| Stage 1              | 476    | -      | -      |
| Stage 2              | 525    | -      | -      |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 23.8 | 0  | 1  |
| HCM LOS              | C    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 265   | 861   |
| HCM Lane V/C Ratio    | -   | -        | 0.279 | 0.063 |
| HCM Control Delay (s) | -   | -        | 23.8  | 9.5   |
| HCM Lane LOS          | -   | -        | C     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 1.1   | 0.2   |

Intersection

Int Delay, s/veh 1.4

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 26                                                                                | 31   | 656                                                                               | 30   | 37   | 403                                                                               |
| Future Vol, veh/h        | 26                                                                                | 31   | 656                                                                               | 30   | 37   | 403                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 28                                                                                | 34   | 713                                                                               | 33   | 40   | 438                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1248   | 730    | 0      |
| Stage 1              | 730    | -      | -      |
| Stage 2              | 518    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 191    | 422    | -      |
| Stage 1              | 477    | -      | -      |
| Stage 2              | 598    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 179    | 422    | -      |
| Mov Cap-2 Maneuver   | 179    | -      | -      |
| Stage 1              | 477    | -      | -      |
| Stage 2              | 562    | -      | -      |

| Approach             | WB | NB | SB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 23 | 0  | 0.8 |
| HCM LOS              | C  |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 261   | 862   |
| HCM Lane V/C Ratio    | -   | -        | 0.237 | 0.047 |
| HCM Control Delay (s) | -   | -        | 23    | 9.4   |
| HCM Lane LOS          | -   | -        | C     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.9   | 0.1   |

| Intersection             |                                                                                   |          |                                                                                   |       |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|-------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.8                                                                               |          |                                                                                   |       |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR   | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |       |       |  |
| Traffic Vol, veh/h       | 19                                                                                | 14       | 672                                                                               | 26    | 19    | 410                                                                               |
| Future Vol, veh/h        | 19                                                                                | 14       | 672                                                                               | 26    | 19    | 410                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0     | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free  | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None  | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -     | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -     | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -     | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92    | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2     | 2     | 2                                                                                 |
| Mvmt Flow                | 21                                                                                | 15       | 730                                                                               | 28    | 21    | 446                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   | Major2                                                                            |       |       |                                                                                   |
| Conflicting Flow All     | 1232                                                                              | 744      | 0                                                                                 | 0     | 758   | 0                                                                                 |
| Stage 1                  | 744                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 488                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -     | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -     | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -     | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 196                                                                               | 415      | -                                                                                 | -     | 853   | -                                                                                 |
| Stage 1                  | 470                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 617                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -     |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 190                                                                               | 415      | -                                                                                 | -     | 853   | -                                                                                 |
| Mov Cap-2 Maneuver       | 190                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 1                  | 470                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 597                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       | SB                                                                                |       |       |                                                                                   |
| HCM Control Delay, s     | 22                                                                                | 0        | 0.4                                                                               |       |       |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |       |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT   |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 247                                                                               | 853   | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.145                                                                             | 0.024 | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 22                                                                                | 9.3   | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A     | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0.5                                                                               | 0.1   | -     |                                                                                   |

| Intersection             |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.1                                                                               |          |                                                                                   |        |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |        |       |  |
| Traffic Vol, veh/h       | 1                                                                                 | 3        | 695                                                                               | 3      | 4     | 425                                                                               |
| Future Vol, veh/h        | 1                                                                                 | 3        | 695                                                                               | 3      | 4     | 425                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -     | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92       | 92                                                                                | 92     | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                | 1                                                                                 | 3        | 755                                                                               | 3      | 4     | 462                                                                               |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All     | 1227                                                                              | 757      | 0                                                                                 | 0      | 758   | 0                                                                                 |
| Stage 1                  | 757                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 470                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver       | 197                                                                               | 408      | -                                                                                 | -      | 853   | -                                                                                 |
| Stage 1                  | 463                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 629                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 196                                                                               | 408      | -                                                                                 | -      | 853   | -                                                                                 |
| Mov Cap-2 Maneuver       | 196                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                  | 463                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                  | 625                                                                               | -        | -                                                                                 | -      | -     | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s     | 16.4                                                                              | 0        |                                                                                   | 0.1    |       |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |        |       |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT    |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 321                                                                               | 853    | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.014                                                                             | 0.005  | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 16.4                                                                              | 9.2    | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A      | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0                                                                                 | 0      | -     |                                                                                   |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 6                                                                                 | 338                                                                               | 14                                                                                | 82                                                                                | 516                                                                               | 620                                                                               | 14                                                                                  | 73                                                                                  | 48                                                                                  | 353                                                                                 | 68                                                                                  | 5                                                                                   |
| Future Volume (vph)        | 6                                                                                 | 338                                                                               | 14                                                                                | 82                                                                                | 516                                                                               | 620                                                                               | 14                                                                                  | 73                                                                                  | 48                                                                                  | 353                                                                                 | 68                                                                                  | 5                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.994                                                                             |                                                                                   |                                                                                   | 0.917                                                                             |                                                                                   |                                                                                     | 0.944                                                                               |                                                                                     |                                                                                     | 0.987                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3518                                                                              | 0                                                                                 | 1770                                                                              | 3245                                                                              | 0                                                                                 | 1770                                                                                | 1758                                                                                | 0                                                                                   | 1770                                                                                | 1839                                                                                | 0                                                                                   |
| Flt Permitted              | 0.144                                                                             |                                                                                   |                                                                                   | 0.314                                                                             |                                                                                   |                                                                                   | 0.684                                                                               |                                                                                     |                                                                                     | 0.538                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 268                                                                               | 3518                                                                              | 0                                                                                 | 585                                                                               | 3245                                                                              | 0                                                                                 | 1274                                                                                | 1758                                                                                | 0                                                                                   | 1002                                                                                | 1839                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 320                                                                               |                                                                                   |                                                                                     | 31                                                                                  |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 12                                                                                | 520                                                                               | 23                                                                                | 96                                                                                | 573                                                                               | 705                                                                               | 23                                                                                  | 94                                                                                  | 56                                                                                  | 420                                                                                 | 103                                                                                 | 10                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 12                                                                                | 543                                                                               | 0                                                                                 | 96                                                                                | 1278                                                                              | 0                                                                                 | 23                                                                                  | 150                                                                                 | 0                                                                                   | 420                                                                                 | 113                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

Build 2033 PM  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
04/14/2022



| Lane Group              | EBL   | EBT   | EBR | WBL   | WBT   | WBR | NEL   | NET   | NER | SWL   | SWT   | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase          | 5     | 2     |     | 1     | 6     |     | 7     | 4     |     | 3     | 8     |     |
| Switch Phase            |       |       |     |       |       |     |       |       |     |       |       |     |
| Minimum Initial (s)     | 3.0   | 16.0  |     | 3.0   | 16.0  |     | 3.0   | 8.0   |     | 3.0   | 8.0   |     |
| Minimum Split (s)       | 9.5   | 23.5  |     | 9.5   | 23.5  |     | 9.5   | 36.5  |     | 9.5   | 36.5  |     |
| Total Split (s)         | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 16.0  | 24.0  |     | 24.0  | 24.0  |     |
| Total Split (%)         | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 18.2% | 27.3% |     | 27.3% | 27.3% |     |
| Maximum Green (s)       | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 12.5  | 18.5  |     | 20.5  | 18.5  |     |
| Yellow Time (s)         | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     | 3.0   | 4.0   |     |
| All-Red Time (s)        | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     | 0.5   | 1.5   |     |
| Lost Time Adjust (s)    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Lost Time (s)     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     | 3.5   | 5.5   |     |
| Lead/Lag                | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     | Lead  | Lag   |     |
| Lead-Lag Optimize?      | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     | Yes   | Yes   |     |
| Vehicle Extension (s)   | 1.5   | 3.0   |     | 1.5   | 3.0   |     | 1.5   | 4.0   |     | 1.5   | 4.0   |     |
| Recall Mode             | None  | Min   |     | None  | Min   |     | None  | C-Max |     | None  | C-Max |     |
| Walk Time (s)           |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |       | 7.0   |     |
| Flash Dont Walk (s)     |       | 9.0   |     |       | 9.0   |     |       | 24.0  |     |       | 24.0  |     |
| Pedestrian Calls (#/hr) |       | 0     |     |       | 0     |     |       | 0     |     |       | 0     |     |
| Act Effect Green (s)    | 31.2  | 25.6  |     | 36.5  | 32.8  |     | 28.7  | 22.1  |     | 44.5  | 39.0  |     |
| Actuated g/C Ratio      | 0.35  | 0.29  |     | 0.41  | 0.37  |     | 0.33  | 0.25  |     | 0.51  | 0.44  |     |
| v/c Ratio               | 0.07  | 0.53  |     | 0.29  | 0.91  |     | 0.05  | 0.32  |     | 0.64  | 0.14  |     |
| Control Delay           | 16.5  | 29.2  |     | 18.4  | 31.0  |     | 13.1  | 24.8  |     | 19.3  | 15.7  |     |
| Queue Delay             | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Total Delay             | 16.5  | 29.2  |     | 18.4  | 31.0  |     | 13.1  | 24.8  |     | 19.3  | 15.7  |     |
| LOS                     | B     | C     |     | B     | C     |     | B     | C     |     | B     | B     |     |
| Approach Delay          |       | 28.9  |     |       | 30.2  |     |       | 23.2  |     |       | 18.6  |     |
| Approach LOS            |       | C     |     |       | C     |     |       | C     |     |       | B     |     |
| Queue Length 50th (ft)  | 4     | 134   |     | 32    | 263   |     | 6     | 54    |     | 144   | 31    |     |
| Queue Length 95th (ft)  | 8     | 131   |     | 59    | #483  |     | 12    | 93    |     | 199   | 52    |     |
| Internal Link Dist (ft) |       | 449   |     |       | 393   |     |       | 138   |     |       | 263   |     |
| Turn Bay Length (ft)    | 140   |       |     | 160   |       |     | 115   |       |     | 125   |       |     |
| Base Capacity (vph)     | 324   | 1028  |     | 410   | 1409  |     | 600   | 465   |     | 685   | 818   |     |
| Starvation Cap Reductn  | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Spillback Cap Reductn   | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Storage Cap Reductn     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     | 0     | 0     |     |
| Reduced v/c Ratio       | 0.04  | 0.53  |     | 0.23  | 0.91  |     | 0.04  | 0.32  |     | 0.61  | 0.14  |     |

Intersection Summary

Area Type: Other

Cycle Length: 88

Actuated Cycle Length: 88

Offset: 48 (55%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 27.1

Intersection LOS: C

Intersection Capacity Utilization 79.7%

ICU Level of Service D

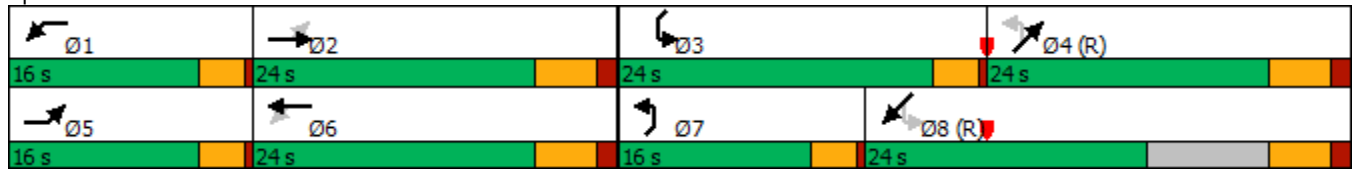
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.



Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd



Intersection

Int Delay, s/veh 4

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 28                                                                                | 52   | 21   | 0                                                                                 | 47                                                                                | 0    |
| Future Vol, veh/h        | 28                                                                                | 52   | 21   | 0                                                                                 | 47                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 30                                                                                | 57   | 23   | 0                                                                                 | 51                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 87     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1509   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1509   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB  |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0  | 7.4 | 9.3 |
| HCM LOS              |    |     | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 880   | -   | -   | 1509  | -   |
| HCM Lane V/C Ratio    | 0.058 | -   | -   | 0.015 | -   |
| HCM Control Delay (s) | 9.3   | -   | -   | 7.4   | 0   |
| HCM Lane LOS          | A     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | 0     | -   |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 2                                                                                 |        |       |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL   | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |       |  |  |       |
| Traffic Vol, veh/h       | 14                                                                                | 14     | 0     | 10                                                                                | 11                                                                                | 0     |
| Future Vol, veh/h        | 14                                                                                | 14     | 0     | 10                                                                                | 11                                                                                | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free  | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -     | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -     | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92    | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2     | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 15                                                                                | 15     | 0     | 11                                                                                | 12                                                                                | 0     |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 |       | Minor1                                                                            |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 30    | 0                                                                                 | 34                                                                                | 23    |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 23                                                                                | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 11                                                                                | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12  | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -     | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -     | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218 | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1583  | -                                                                                 | 979                                                                               | 1054  |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 1000                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 1012                                                                              | -     |
| Platoon blocked, %       | -                                                                                 | -      |       | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1583  | -                                                                                 | 979                                                                               | 1054  |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -     | -                                                                                 | 979                                                                               | -     |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 1000                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 1012                                                                              | -     |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |       | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |       | 8.7                                                                               |                                                                                   |       |
| HCM LOS                  | A                                                                                 |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR   | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 979                                                                               | -      | -     | 1583                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.012                                                                             | -      | -     | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 8.7                                                                               | -      | -     | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -      | -     | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | -     | 0                                                                                 | -                                                                                 |       |

Intersection

Int Delay, s/veh 3.4

| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 14   | 0    | 0                                                                                 | 10                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 14   | 0    | 0                                                                                 | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 15   | 0    | 0                                                                                 | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 15     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1603   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1603   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0  | 0  | 8.6 |
| HCM LOS              |    |    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 1011  | -   | -   | 1603 | -   |
| HCM Lane V/C Ratio    | 0.011 | -   | -   | -    | -   |
| HCM Control Delay (s) | 8.6   | -   | -   | 0    | -   |
| HCM Lane LOS          | A     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0    | -   |

Intersection

Int Delay, s/veh 7

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 7    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 4    |
| Future Vol, veh/h        | 7    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 4    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -    | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | -    | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -    | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 8    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 4    |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 1      | 0      | 0 17 1        |
| Stage 1              | -      | -      | - 1 -         |
| Stage 2              | -      | -      | - 16 -        |
| Critical Hdwy        | 4.12   | -      | - 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | - 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | - 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | - 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1622   | -      | - 1001 1084   |
| Stage 1              | -      | -      | - 1022 -      |
| Stage 2              | -      | -      | - 1007 -      |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1622   | -      | - 996 1084    |
| Mov Cap-2 Maneuver   | -      | -      | - 996 -       |
| Stage 1              | -      | -      | - 1017 -      |
| Stage 2              | -      | -      | - 1007 -      |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 7.2 | 0  | 8.3 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1622  | -   | -   | -   | 1084  |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | -   | 0.004 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.3   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

# **APPENDIX P**

## **Mitigation 2033 Synchro Reports**

Build 2033 AM\_Mitigation  
1: Universe Blvd & Paseo Del Norte Blvd

Lanes, Volumes, Timings  
04/15/2022

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 229                                                                               | 538                                                                               | 87                                                                                | 134                                                                               | 244                                                                               | 187                                                                               | 16                                                                                  | 290                                                                                 | 227                                                                                 | 401                                                                                 | 651                                                                                 | 347                                                                                 |
| Future Volume (vph)        | 229                                                                               | 538                                                                               | 87                                                                                | 134                                                                               | 244                                                                               | 187                                                                               | 16                                                                                  | 290                                                                                 | 227                                                                                 | 401                                                                                 | 651                                                                                 | 347                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.937                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1745                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.095                                                                             |                                                                                   |                                                                                   | 0.104                                                                             |                                                                                   |                                                                                   | 0.112                                                                               |                                                                                     |                                                                                     | 0.228                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 177                                                                               | 1863                                                                              | 1583                                                                              | 194                                                                               | 1745                                                                              | 0                                                                                 | 209                                                                                 | 1863                                                                                | 1583                                                                                | 425                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 105                                                                               |                                                                                   | 28                                                                                |                                                                                   |                                                                                     |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 247                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.84                                                                              | 0.82                                                                              | 0.79                                                                              | 0.61                                                                              | 0.69                                                                              | 0.73                                                                              | 0.45                                                                                | 0.79                                                                                | 0.59                                                                                | 0.87                                                                                | 0.78                                                                                | 0.88                                                                                |
| Adj. Flow (vph)            | 273                                                                               | 656                                                                               | 110                                                                               | 220                                                                               | 354                                                                               | 256                                                                               | 36                                                                                  | 367                                                                                 | 385                                                                                 | 461                                                                                 | 835                                                                                 | 394                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 273                                                                               | 656                                                                               | 110                                                                               | 220                                                                               | 610                                                                               | 0                                                                                 | 36                                                                                  | 367                                                                                 | 385                                                                                 | 461                                                                                 | 835                                                                                 | 394                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |



Build 2033 AM\_Mitigation  
1: Universe Blvd & Paseo Del Norte Blvd

Lanes, Volumes, Timings  
04/15/2022

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   | 8                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 20.0                                                                              | 20.0                                                                              | 3.0                                                                               | 20.0                                                                              |                                                                                   | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                |
| Minimum Split (s)       | 9.5                                                                               | 34.5                                                                              | 34.5                                                                              | 9.5                                                                               | 25.5                                                                              |                                                                                   | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                |
| Total Split (s)         | 17.0                                                                              | 48.0                                                                              | 48.0                                                                              | 13.0                                                                              | 44.0                                                                              |                                                                                   | 9.5                                                                                 | 40.6                                                                                | 40.6                                                                                | 28.4                                                                                | 59.5                                                                                | 59.5                                                                                |
| Total Split (%)         | 13.1%                                                                             | 36.9%                                                                             | 36.9%                                                                             | 10.0%                                                                             | 33.8%                                                                             |                                                                                   | 7.3%                                                                                | 31.2%                                                                               | 31.2%                                                                               | 21.8%                                                                               | 45.8%                                                                               | 45.8%                                                                               |
| Maximum Green (s)       | 13.5                                                                              | 42.5                                                                              | 42.5                                                                              | 9.5                                                                               | 38.5                                                                              |                                                                                   | 6.0                                                                                 | 35.6                                                                                | 35.6                                                                                | 24.9                                                                                | 54.5                                                                                | 54.5                                                                                |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              |                                                                                   | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |
| Walk Time (s)           |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)     |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                   | 12.0                                                                              |                                                                                   |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 9.0                                                                                 | 9.0                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |
| Act Effect Green (s)    | 57.5                                                                              | 42.5                                                                              | 42.5                                                                              | 50.0                                                                              | 38.5                                                                              |                                                                                   | 42.3                                                                                | 35.6                                                                                | 35.6                                                                                | 65.5                                                                                | 58.5                                                                                | 58.5                                                                                |
| Actuated g/C Ratio      | 0.44                                                                              | 0.33                                                                              | 0.33                                                                              | 0.38                                                                              | 0.30                                                                              |                                                                                   | 0.33                                                                                | 0.27                                                                                | 0.27                                                                                | 0.50                                                                                | 0.45                                                                                | 0.45                                                                                |
| v/c Ratio               | 1.12                                                                              | 1.08                                                                              | 0.19                                                                              | 1.16                                                                              | 1.14                                                                              |                                                                                   | 0.28                                                                                | 0.72                                                                                | 0.72                                                                                | 0.98                                                                                | 1.00                                                                                | 0.47                                                                                |
| Control Delay           | 127.4                                                                             | 100.7                                                                             | 7.1                                                                               | 146.3                                                                             | 122.7                                                                             |                                                                                   | 24.5                                                                                | 51.9                                                                                | 35.6                                                                                | 62.7                                                                                | 66.7                                                                                | 11.2                                                                                |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 127.4                                                                             | 100.7                                                                             | 7.1                                                                               | 146.3                                                                             | 122.7                                                                             |                                                                                   | 24.5                                                                                | 51.9                                                                                | 35.6                                                                                | 62.7                                                                                | 66.7                                                                                | 11.2                                                                                |
| LOS                     | F                                                                                 | F                                                                                 | A                                                                                 | F                                                                                 | F                                                                                 |                                                                                   | C                                                                                   | D                                                                                   | D                                                                                   | E                                                                                   | E                                                                                   | B                                                                                   |
| Approach Delay          |                                                                                   | 97.8                                                                              |                                                                                   |                                                                                   | 129.0                                                                             |                                                                                   |                                                                                     | 42.7                                                                                |                                                                                     |                                                                                     | 52.7                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                     | D                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | ~211                                                                              | ~615                                                                              | 3                                                                                 | ~165                                                                              | ~583                                                                              |                                                                                   | 15                                                                                  | 281                                                                                 | 193                                                                                 | 267                                                                                 | ~769                                                                                | 80                                                                                  |
| Queue Length 95th (ft)  | #347                                                                              | #727                                                                              | 32                                                                                | #151                                                                              | #510                                                                              |                                                                                   | 17                                                                                  | 334                                                                                 | 139                                                                                 | #455                                                                                | #797                                                                                | 162                                                                                 |
| Internal Link Dist (ft) |                                                                                   | 127                                                                               |                                                                                   |                                                                                   | 462                                                                               |                                                                                   |                                                                                     | 201                                                                                 |                                                                                     |                                                                                     | 642                                                                                 |                                                                                     |
| Turn Bay Length (ft)    |                                                                                   |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   |                                                                                   | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Base Capacity (vph)     | 243                                                                               | 609                                                                               | 588                                                                               | 189                                                                               | 536                                                                               |                                                                                   | 141                                                                                 | 510                                                                                 | 533                                                                                 | 471                                                                                 | 838                                                                                 | 847                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 1.12                                                                              | 1.08                                                                              | 0.19                                                                              | 1.16                                                                              | 1.14                                                                              |                                                                                   | 0.26                                                                                | 0.72                                                                                | 0.72                                                                                | 0.98                                                                                | 1.00                                                                                | 0.47                                                                                |

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 76.2

Intersection LOS: E

Intersection Capacity Utilization 90.0%

ICU Level of Service E

Analysis Period (min) 15

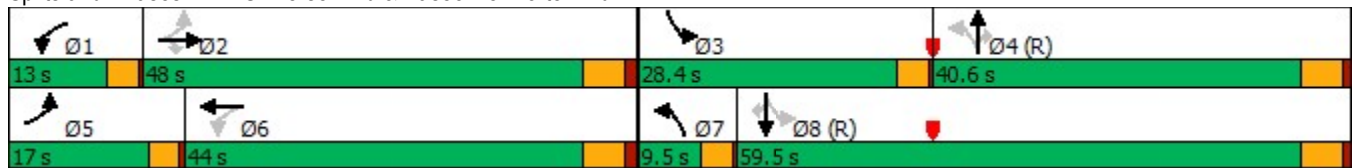
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 16                                                                                | 39                                                                                | 81                                                                                | 291                                                                               | 823                                                                               | 175                                                                               |
| Future Vol, veh/h        | 16                                                                                | 39                                                                                | 81                                                                                | 291                                                                               | 823                                                                               | 175                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 1                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 39                                                                                | 45                                                                                | 49                                                                                | 92                                                                                | 92                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 41                                                                                | 87                                                                                | 165                                                                               | 316                                                                               | 895                                                                               | 372                                                                               |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1541                                                                              | 895                                                                               | 1267                                                                              | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 895                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 646                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 127                                                                               | 339                                                                               | 548                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 399                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 522                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 89                                                                                | 339                                                                               | 548                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 202                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 279                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 522                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 21.8                                                                              | 4.9                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 548                                                                               | -                                                                                 | 202                                                                               | 339                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.302                                                                             | -                                                                                 | 0.203                                                                             | 0.256                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 14.4                                                                              | -                                                                                 | 27.3                                                                              | 19.2                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | B                                                                                 | -                                                                                 | D                                                                                 | C                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 1.3                                                                               | -                                                                                 | 0.7                                                                               | 1                                                                                 | -                                                                                 | -                                                                                 |

Build 2033 AM\_Mitigation\_2  
7: Scenic Dr & Rainbow Blvd & Universe Blvd

Lanes, Volumes, Timings  
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|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | SBL                                                                                | SBR                                                                                 | SBR2                                                                                | NEL2                                                                                | NEL                                                                                 | NER                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |  |  |  |                                                                                     |  |  |  |
| Traffic Volume (vph)       | 7                                                                                 | 609                                                                               | 20                                                                                | 14                                                                                | 488                                                                               | 264                                                                               | 805                                                                                | 42                                                                                  | 24                                                                                  | 75                                                                                  | 61                                                                                  | 66                                                                                  |
| Future Volume (vph)        | 7                                                                                 | 609                                                                               | 20                                                                                | 14                                                                                | 488                                                                               | 264                                                                               | 805                                                                                | 42                                                                                  | 24                                                                                  | 75                                                                                  | 61                                                                                  | 66                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 240                                                                               | 300                                                                                | 0                                                                                   |                                                                                     |                                                                                     | 115                                                                                 | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  | 1                                                                                   |                                                                                     |                                                                                     | 0                                                                                   | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 100                                                                                |                                                                                     |                                                                                     |                                                                                     | 20                                                                                  |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.91                                                                              | 0.91                                                                              | 0.97                                                                               | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.994                                                                             | 0.850                                                                             |                                                                                    | 0.850                                                                               |                                                                                     |                                                                                     | 0.923                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               | 0.976                                                                               |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3370                                                                              | 1441                                                                              | 3433                                                                               | 1583                                                                                | 0                                                                                   | 1770                                                                                | 1678                                                                                | 0                                                                                   |
| Flt Permitted              | 0.180                                                                             |                                                                                   |                                                                                   | 0.150                                                                             |                                                                                   |                                                                                   | 0.568                                                                              |                                                                                     |                                                                                     | 0.684                                                                               | 0.976                                                                               |                                                                                     |
| Satd. Flow (perm)          | 335                                                                               | 3514                                                                              | 0                                                                                 | 279                                                                               | 3370                                                                              | 1441                                                                              | 2053                                                                               | 1583                                                                                | 0                                                                                   | 1274                                                                                | 1678                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 4                                                                                 | 276                                                                               |                                                                                    | 115                                                                                 |                                                                                     |                                                                                     | 158                                                                                 |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   | 30                                                                                 |                                                                                     |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   | 656                                                                                |                                                                                     |                                                                                     |                                                                                     | 218                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   | 14.9                                                                               |                                                                                     |                                                                                     |                                                                                     | 5.0                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.87                                                                               | 0.75                                                                                | 0.42                                                                                | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                |
| Adj. Flow (vph)            | 14                                                                                | 781                                                                               | 40                                                                                | 28                                                                                | 728                                                                               | 307                                                                               | 925                                                                                | 56                                                                                  | 57                                                                                  | 153                                                                                 | 86                                                                                  | 90                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 10%                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 14                                                                                | 821                                                                               | 0                                                                                 | 28                                                                                | 759                                                                               | 276                                                                               | 925                                                                                | 113                                                                                 | 0                                                                                   | 153                                                                                 | 176                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Right                                                                               | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   | 24                                                                                 |                                                                                     |                                                                                     |                                                                                     | 24                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   | -5                                                                                 |                                                                                     |                                                                                     |                                                                                     | 15                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   | 30                                                                                 |                                                                                     |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                 | 9                                                                                   | 9                                                                                   | 15                                                                                  | 15                                                                                  | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                  | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                               | Right                                                                               |                                                                                     | Left                                                                                | Left                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                 | 20                                                                                  |                                                                                     | 20                                                                                  | 20                                                                                  |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                 | 20                                                                                  |                                                                                     | 20                                                                                  | 20                                                                                  |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                              | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | Prot                                                                                |                                                                                     | pm+pt                                                                               | Prot                                                                                |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 3                                                                                  | 8                                                                                   |                                                                                     | 7                                                                                   | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                  |                                                                                     |                                                                                     | 4                                                                                   |                                                                                     |                                                                                     |

Build 2033 AM\_Mitigation\_2  
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|                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                                                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | SBL                                                                                 | SBR                                                                                 | SBR2                                                                                | NEL2                                                                                | NEL                                                                                 | NER                                                                                 |
| Detector Phase                                                      | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 | 6                                                                                 | 3                                                                                   | 8                                                                                   |                                                                                     | 7                                                                                   | 4                                                                                   |                                                                                     |
| Switch Phase                                                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)                                                 | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              | 23.5                                                                              | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)                                                     | 9.5                                                                               | 28.0                                                                              |                                                                                   | 9.5                                                                               | 28.0                                                                              | 28.0                                                                              | 14.0                                                                                | 42.7                                                                                |                                                                                     | 9.8                                                                                 | 38.5                                                                                |                                                                                     |
| Total Split (%)                                                     | 10.6%                                                                             | 31.1%                                                                             |                                                                                   | 10.6%                                                                             | 31.1%                                                                             | 31.1%                                                                             | 15.6%                                                                               | 47.4%                                                                               |                                                                                     | 10.9%                                                                               | 42.8%                                                                               |                                                                                     |
| Maximum Green (s)                                                   | 6.0                                                                               | 22.5                                                                              |                                                                                   | 6.0                                                                               | 22.5                                                                              | 22.5                                                                              | 10.5                                                                                | 37.2                                                                                |                                                                                     | 6.3                                                                                 | 33.0                                                                                |                                                                                     |
| Yellow Time (s)                                                     | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)                                                    | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)                                                | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)                                                 | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                                                            | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?                                                  | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)                                               | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode                                                         | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               | Min                                                                               | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)                                                       |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)                                                 |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               | 9.0                                                                               |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)                                             |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effct Green (s)                                                 | 28.7                                                                              | 24.7                                                                              |                                                                                   | 29.8                                                                              | 26.6                                                                              | 26.6                                                                              | 52.6                                                                                | 40.9                                                                                |                                                                                     | 43.1                                                                                | 34.8                                                                                |                                                                                     |
| Actuated g/C Ratio                                                  | 0.32                                                                              | 0.27                                                                              |                                                                                   | 0.33                                                                              | 0.30                                                                              | 0.30                                                                              | 0.58                                                                                | 0.45                                                                                |                                                                                     | 0.48                                                                                | 0.39                                                                                |                                                                                     |
| v/c Ratio                                                           | 0.08                                                                              | 0.85                                                                              |                                                                                   | 0.16                                                                              | 0.76                                                                              | 0.45                                                                              | 0.67                                                                                | 0.14                                                                                |                                                                                     | 0.24                                                                                | 0.24                                                                                |                                                                                     |
| Control Delay                                                       | 19.1                                                                              | 41.0                                                                              |                                                                                   | 20.6                                                                              | 34.8                                                                              | 5.8                                                                               | 14.6                                                                                | 3.8                                                                                 |                                                                                     | 11.0                                                                                | 5.3                                                                                 |                                                                                     |
| Queue Delay                                                         | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay                                                         | 19.1                                                                              | 41.0                                                                              |                                                                                   | 20.6                                                                              | 34.8                                                                              | 5.8                                                                               | 14.6                                                                                | 3.8                                                                                 |                                                                                     | 11.0                                                                                | 5.3                                                                                 |                                                                                     |
| LOS                                                                 | B                                                                                 | D                                                                                 |                                                                                   | C                                                                                 | C                                                                                 | A                                                                                 | B                                                                                   | A                                                                                   |                                                                                     | B                                                                                   | A                                                                                   |                                                                                     |
| Approach Delay                                                      |                                                                                   | 40.6                                                                              |                                                                                   |                                                                                   | 26.9                                                                              |                                                                                   | 13.4                                                                                |                                                                                     |                                                                                     |                                                                                     | 7.9                                                                                 |                                                                                     |
| Approach LOS                                                        |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   | B                                                                                   |                                                                                     |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |
| Queue Length 50th (ft)                                              | 5                                                                                 | 214                                                                               |                                                                                   | 11                                                                                | 204                                                                               | 0                                                                                 | 144                                                                                 | 0                                                                                   |                                                                                     | 37                                                                                  | 6                                                                                   |                                                                                     |
| Queue Length 95th (ft)                                              | 10                                                                                | 259                                                                               |                                                                                   | 15                                                                                | 204                                                                               | 54                                                                                | 197                                                                                 | 18                                                                                  |                                                                                     | 36                                                                                  | 24                                                                                  |                                                                                     |
| Internal Link Dist (ft)                                             |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   | 576                                                                                 |                                                                                     |                                                                                     |                                                                                     | 138                                                                                 |                                                                                     |
| Turn Bay Length (ft)                                                | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   | 240                                                                               | 300                                                                                 |                                                                                     |                                                                                     | 115                                                                                 | 115                                                                                 |                                                                                     |
| Base Capacity (vph)                                                 | 204                                                                               | 968                                                                               |                                                                                   | 191                                                                               | 998                                                                               | 620                                                                               | 1389                                                                                | 781                                                                                 |                                                                                     | 649                                                                                 | 745                                                                                 |                                                                                     |
| Starvation Cap Reductn                                              | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn                                               | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio                                                   | 0.07                                                                              | 0.85                                                                              |                                                                                   | 0.15                                                                              | 0.76                                                                              | 0.45                                                                              | 0.67                                                                                | 0.14                                                                                |                                                                                     | 0.24                                                                                | 0.24                                                                                |                                                                                     |
| Intersection Summary                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type:                                                          |                                                                                   | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Cycle Length: 90                                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length: 90                                           |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Offset: 0 (0%), Referenced to phase 4:NEL and 8:SBL, Start of Green |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Natural Cycle: 90                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type: Actuated-Coordinated                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Maximum v/c Ratio: 0.85                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Signal Delay: 24.2                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | Intersection LOS: C                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization 60.4%                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | ICU Level of Service B                                                            |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min) 15                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Splits and Phases: 7: Scenic Dr & Rainbow Blvd & Universe Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                          |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 9.5 s                                                                                | 28 s                                                                                 | 14 s                                                                                 | 38.5 s                                                                                   |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 9.5 s                                                                                | 28 s                                                                                 | 9.8 s                                                                                | 42.7 s                                                                                   |

Build 2033 AM\_Rosa Parks Extension\_Mitigation  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
10/20/2022

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 7                                                                                 | 609                                                                               | 20                                                                                | 14                                                                                | 488                                                                               | 248                                                                               | 75                                                                                  | 61                                                                                  | 66                                                                                  | 773                                                                                 | 41                                                                                  | 24                                                                                  |
| Future Volume (vph)        | 7                                                                                 | 609                                                                               | 20                                                                                | 14                                                                                | 488                                                                               | 248                                                                               | 75                                                                                  | 61                                                                                  | 66                                                                                  | 773                                                                                 | 41                                                                                  | 24                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.993                                                                             |                                                                                   |                                                                                   | 0.957                                                                             |                                                                                   |                                                                                     | 0.923                                                                               |                                                                                     |                                                                                     | 0.924                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3514                                                                              | 0                                                                                 | 1770                                                                              | 3387                                                                              | 0                                                                                 | 1770                                                                                | 1719                                                                                | 0                                                                                   | 1770                                                                                | 1721                                                                                | 0                                                                                   |
| Flt Permitted              | 0.088                                                                             |                                                                                   |                                                                                   | 0.130                                                                             |                                                                                   |                                                                                   | 0.685                                                                               |                                                                                     |                                                                                     | 0.440                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 164                                                                               | 3514                                                                              | 0                                                                                 | 242                                                                               | 3387                                                                              | 0                                                                                 | 1276                                                                                | 1719                                                                                | 0                                                                                   | 820                                                                                 | 1721                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 3                                                                                 |                                                                                   |                                                                                   | 38                                                                                |                                                                                   |                                                                                     | 32                                                                                  |                                                                                     |                                                                                     | 50                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.78                                                                              | 0.50                                                                              | 0.50                                                                              | 0.67                                                                              | 0.86                                                                              | 0.49                                                                                | 0.71                                                                                | 0.73                                                                                | 0.87                                                                                | 0.75                                                                                | 0.42                                                                                |
| Adj. Flow (vph)            | 14                                                                                | 781                                                                               | 40                                                                                | 28                                                                                | 728                                                                               | 288                                                                               | 153                                                                                 | 86                                                                                  | 90                                                                                  | 889                                                                                 | 55                                                                                  | 57                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 14                                                                                | 821                                                                               | 0                                                                                 | 28                                                                                | 1016                                                                              | 0                                                                                 | 153                                                                                 | 176                                                                                 | 0                                                                                   | 889                                                                                 | 112                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |



|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)         | 9.6                                                                               | 46.0                                                                              |                                                                                   | 9.6                                                                               | 46.0                                                                              |                                                                                   | 13.2                                                                                | 38.4                                                                                |                                                                                     | 56.0                                                                                | 81.2                                                                                |                                                                                     |
| Total Split (%)         | 6.4%                                                                              | 30.7%                                                                             |                                                                                   | 6.4%                                                                              | 30.7%                                                                             |                                                                                   | 8.8%                                                                                | 25.6%                                                                               |                                                                                     | 37.3%                                                                               | 54.1%                                                                               |                                                                                     |
| Maximum Green (s)       | 6.1                                                                               | 40.5                                                                              |                                                                                   | 6.1                                                                               | 40.5                                                                              |                                                                                   | 9.7                                                                                 | 32.9                                                                                |                                                                                     | 52.5                                                                                | 75.7                                                                                |                                                                                     |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effect Green (s)    | 49.7                                                                              | 44.5                                                                              |                                                                                   | 50.9                                                                              | 46.4                                                                              |                                                                                   | 43.7                                                                                | 32.9                                                                                |                                                                                     | 90.9                                                                                | 76.6                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.33                                                                              | 0.30                                                                              |                                                                                   | 0.34                                                                              | 0.31                                                                              |                                                                                   | 0.29                                                                                | 0.22                                                                                |                                                                                     | 0.61                                                                                | 0.51                                                                                |                                                                                     |
| v/c Ratio               | 0.13                                                                              | 0.79                                                                              |                                                                                   | 0.21                                                                              | 0.95                                                                              |                                                                                   | 0.38                                                                                | 0.44                                                                                |                                                                                     | 1.07                                                                                | 0.12                                                                                |                                                                                     |
| Control Delay           | 35.0                                                                              | 55.2                                                                              |                                                                                   | 36.2                                                                              | 65.3                                                                              |                                                                                   | 24.1                                                                                | 45.0                                                                                |                                                                                     | 76.2                                                                                | 11.2                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 35.0                                                                              | 55.2                                                                              |                                                                                   | 36.2                                                                              | 65.3                                                                              |                                                                                   | 24.1                                                                                | 45.0                                                                                |                                                                                     | 76.2                                                                                | 11.2                                                                                |                                                                                     |
| LOS                     | C                                                                                 | E                                                                                 |                                                                                   | D                                                                                 | E                                                                                 |                                                                                   | C                                                                                   | D                                                                                   |                                                                                     | E                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 54.9                                                                              |                                                                                   |                                                                                   | 64.5                                                                              |                                                                                   |                                                                                     | 35.3                                                                                |                                                                                     |                                                                                     | 68.9                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | D                                                                                   |                                                                                     |                                                                                     | E                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 9                                                                                 | 401                                                                               |                                                                                   | 18                                                                                | 478                                                                               |                                                                                   | 62                                                                                  | 122                                                                                 |                                                                                     | ~745                                                                                | 30                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 14                                                                                | 403                                                                               |                                                                                   | 24                                                                                | 410                                                                               |                                                                                   | 49                                                                                  | 146                                                                                 |                                                                                     | #936                                                                                | 49                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                 |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 120                                                                               | 1043                                                                              |                                                                                   | 144                                                                               | 1074                                                                              |                                                                                   | 411                                                                                 | 402                                                                                 |                                                                                     | 829                                                                                 | 903                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.12                                                                              | 0.79                                                                              |                                                                                   | 0.19                                                                              | 0.95                                                                              |                                                                                   | 0.37                                                                                | 0.44                                                                                |                                                                                     | 1.07                                                                                | 0.12                                                                                |                                                                                     |

#### Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 60.4

Intersection LOS: E

Intersection Capacity Utilization 84.0%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

## 7: Scenic Dr/Universe Blvd &amp; Rainbow Blvd

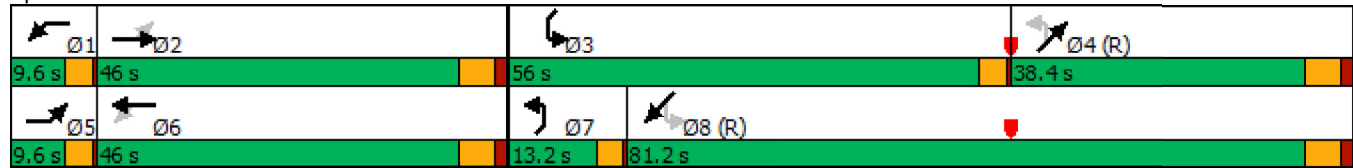
10/20/2022

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd &amp; Rainbow Blvd



Build 2033 PM\_Mitigation  
1: Universe Blvd & Paseo Del Norte Blvd

Lanes, Volumes, Timings  
04/15/2022

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |                                                                                   |   |  |  |  |  |  |
| Traffic Volume (vph)       | 308                                                                               | 375                                                                               | 17                                                                                | 236                                                                               | 558                                                                               | 453                                                                               | 19                                                                                  | 512                                                                                 | 168                                                                                 | 218                                                                                 | 446                                                                                 | 379                                                                                 |
| Future Volume (vph)        | 308                                                                               | 375                                                                               | 17                                                                                | 236                                                                               | 558                                                                               | 453                                                                               | 19                                                                                  | 512                                                                                 | 168                                                                                 | 218                                                                                 | 446                                                                                 | 379                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 0                                                                                 |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   | 0                                                                                 | 130                                                                                 |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 65                                                                                  |                                                                                     |                                                                                     | 45                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.934                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     |                                                                                     | 0.850                                                                               |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 1863                                                                              | 1583                                                                              | 1770                                                                              | 1740                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1863                                                                                | 1583                                                                                |
| Flt Permitted              | 0.074                                                                             |                                                                                   |                                                                                   | 0.317                                                                             |                                                                                   |                                                                                   | 0.125                                                                               |                                                                                     |                                                                                     | 0.113                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 138                                                                               | 1863                                                                              | 1583                                                                              | 590                                                                               | 1740                                                                              | 0                                                                                 | 233                                                                                 | 1863                                                                                | 1583                                                                                | 210                                                                                 | 1863                                                                                | 1583                                                                                |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 105                                                                               |                                                                                   | 36                                                                                |                                                                                   |                                                                                     |                                                                                     | 109                                                                                 |                                                                                     |                                                                                     | 307                                                                                 |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 35                                                                                  |                                                                                     |                                                                                     | 35                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 207                                                                               |                                                                                   |                                                                                   | 542                                                                               |                                                                                   |                                                                                     | 281                                                                                 |                                                                                     |                                                                                     | 722                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 4.7                                                                               |                                                                                   |                                                                                   | 10.6                                                                              |                                                                                   |                                                                                     | 5.5                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.73                                                                              | 0.81                                                                              | 0.62                                                                              | 0.80                                                                              | 0.91                                                                              | 0.95                                                                              | 0.75                                                                                | 0.85                                                                                | 0.81                                                                                | 0.79                                                                                | 0.81                                                                                | 0.95                                                                                |
| Adj. Flow (vph)            | 422                                                                               | 463                                                                               | 27                                                                                | 295                                                                               | 613                                                                               | 477                                                                               | 25                                                                                  | 602                                                                                 | 207                                                                                 | 276                                                                                 | 551                                                                                 | 399                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 422                                                                               | 463                                                                               | 27                                                                                | 295                                                                               | 1090                                                                              | 0                                                                                 | 25                                                                                  | 602                                                                                 | 207                                                                                 | 276                                                                                 | 551                                                                                 | 399                                                                                 |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 19                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | -10                                                                                 |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 40                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   | 1                                                                                   | 2                                                                                   | 1                                                                                   |
| Detector Template          | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                | Right                                                                               | Left                                                                                | Thru                                                                                | Right                                                                               |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 | 20                                                                                  | 20                                                                                  | 100                                                                                 | 20                                                                                  |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   | 20                                                                                  | 20                                                                                  | 6                                                                                   | 20                                                                                  |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               | Cl+Ex                                                                               |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  | Perm                                                                                |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   |

Build 2033 PM\_Mitigation  
1: Universe Blvd & Paseo Del Norte Blvd

Lanes, Volumes, Timings  
04/15/2022

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                  | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   | 8                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 20.0                                                                              | 20.0                                                                              | 3.0                                                                               | 20.0                                                                              |                                                                                   | 3.0                                                                                | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                |
| Minimum Split (s)       | 9.5                                                                               | 34.5                                                                              | 34.5                                                                              | 9.5                                                                               | 25.5                                                                              |                                                                                   | 9.5                                                                                | 23.0                                                                                | 23.0                                                                                | 9.5                                                                                 | 23.0                                                                                | 23.0                                                                                |
| Total Split (s)         | 20.0                                                                              | 56.1                                                                              | 56.1                                                                              | 21.9                                                                              | 58.0                                                                              |                                                                                   | 10.5                                                                               | 37.0                                                                                | 37.0                                                                                | 15.0                                                                                | 41.5                                                                                | 41.5                                                                                |
| Total Split (%)         | 15.4%                                                                             | 43.2%                                                                             | 43.2%                                                                             | 16.8%                                                                             | 44.6%                                                                             |                                                                                   | 8.1%                                                                               | 28.5%                                                                               | 28.5%                                                                               | 11.5%                                                                               | 31.9%                                                                               | 31.9%                                                                               |
| Maximum Green (s)       | 16.5                                                                              | 50.6                                                                              | 50.6                                                                              | 18.4                                                                              | 52.5                                                                              |                                                                                   | 7.0                                                                                | 32.0                                                                                | 32.0                                                                                | 11.5                                                                                | 36.5                                                                                | 36.5                                                                                |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                | 1.0                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 1.0                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                | 5.0                                                                                 | 5.0                                                                                 | 3.5                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                | 2.0                                                                                 | 2.0                                                                                 | 1.5                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Recall Mode             | None                                                                              | Min                                                                               | Min                                                                               | None                                                                              | Min                                                                               |                                                                                   | None                                                                               | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |
| Walk Time (s)           |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                    | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 7.0                                                                                 | 7.0                                                                                 |
| Flash Dont Walk (s)     |                                                                                   | 22.0                                                                              | 22.0                                                                              |                                                                                   | 12.0                                                                              |                                                                                   |                                                                                    | 7.0                                                                                 | 7.0                                                                                 |                                                                                     | 9.0                                                                                 | 9.0                                                                                 |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |
| Act Effect Green (s)    | 72.2                                                                              | 54.2                                                                              | 54.2                                                                              | 69.3                                                                              | 52.5                                                                              |                                                                                   | 38.7                                                                               | 32.0                                                                                | 32.0                                                                                | 48.5                                                                                | 41.4                                                                                | 41.4                                                                                |
| Actuated g/C Ratio      | 0.56                                                                              | 0.42                                                                              | 0.42                                                                              | 0.53                                                                              | 0.40                                                                              |                                                                                   | 0.30                                                                               | 0.25                                                                                | 0.25                                                                                | 0.37                                                                                | 0.32                                                                                | 0.32                                                                                |
| v/c Ratio               | 1.49                                                                              | 0.60                                                                              | 0.04                                                                              | 0.66                                                                              | 1.51                                                                              |                                                                                   | 0.19                                                                               | 1.31                                                                                | 0.44                                                                                | 1.28                                                                                | 0.93                                                                                | 0.56                                                                                |
| Control Delay           | 268.6                                                                             | 34.0                                                                              | 0.1                                                                               | 22.0                                                                              | 264.3                                                                             |                                                                                   | 29.8                                                                               | 195.6                                                                               | 22.3                                                                                | 185.0                                                                               | 67.2                                                                                | 12.6                                                                                |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 268.6                                                                             | 34.0                                                                              | 0.1                                                                               | 22.0                                                                              | 264.3                                                                             |                                                                                   | 29.8                                                                               | 195.6                                                                               | 22.3                                                                                | 185.0                                                                               | 67.2                                                                                | 12.6                                                                                |
| LOS                     | F                                                                                 | C                                                                                 | A                                                                                 | C                                                                                 | F                                                                                 |                                                                                   | C                                                                                  | F                                                                                   | C                                                                                   | F                                                                                   | E                                                                                   | B                                                                                   |
| Approach Delay          |                                                                                   | 141.6                                                                             |                                                                                   |                                                                                   | 212.7                                                                             |                                                                                   |                                                                                    | 147.6                                                                               |                                                                                     |                                                                                     | 75.9                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                    | F                                                                                   |                                                                                     |                                                                                     | E                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | ~440                                                                              | 300                                                                               | 0                                                                                 | 122                                                                               | ~1265                                                                             |                                                                                   | 13                                                                                 | ~653                                                                                | 67                                                                                  | ~241                                                                                | ~466                                                                                | 58                                                                                  |
| Queue Length 95th (ft)  | #475                                                                              | 374                                                                               | 0                                                                                 | 153                                                                               | #1528                                                                             |                                                                                   | 28                                                                                 | #810                                                                                | 118                                                                                 | #341                                                                                | #609                                                                                | 168                                                                                 |
| Internal Link Dist (ft) |                                                                                   | 127                                                                               |                                                                                   |                                                                                   | 462                                                                               |                                                                                   |                                                                                    | 201                                                                                 |                                                                                     |                                                                                     | 642                                                                                 |                                                                                     |
| Turn Bay Length (ft)    |                                                                                   |                                                                                   | 120                                                                               | 140                                                                               |                                                                                   |                                                                                   | 130                                                                                |                                                                                     | 20                                                                                  | 495                                                                                 |                                                                                     | 255                                                                                 |
| Base Capacity (vph)     | 283                                                                               | 777                                                                               | 721                                                                               | 497                                                                               | 724                                                                               |                                                                                   | 155                                                                                | 458                                                                                 | 471                                                                                 | 216                                                                                 | 592                                                                                 | 713                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 1.49                                                                              | 0.60                                                                              | 0.04                                                                              | 0.59                                                                              | 1.51                                                                              |                                                                                   | 0.16                                                                               | 1.31                                                                                | 0.44                                                                                | 1.28                                                                                | 0.93                                                                                | 0.56                                                                                |

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 146.9

Intersection LOS: F

Intersection Capacity Utilization 128.5%

ICU Level of Service H

Analysis Period (min) 15

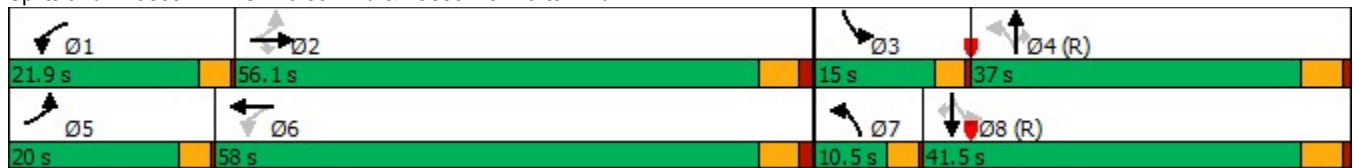
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Universe Blvd & Paseo Del Norte Blvd



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.6                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 3                                                                                 | 12                                                                                | 10                                                                                | 690                                                                               | 452                                                                               | 0                                                                                 |
| Future Vol, veh/h        | 3                                                                                 | 12                                                                                | 10                                                                                | 690                                                                               | 452                                                                               | 0                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 100                                                                               | 200                                                                               | -                                                                                 | -                                                                                 | 190                                                                               |
| Veh in Median Storage, # | 1                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 50                                                                                | 33                                                                                | 25                                                                                | 92                                                                                | 93                                                                                | 47                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 6                                                                                 | 36                                                                                | 40                                                                                | 750                                                                               | 486                                                                               | 0                                                                                 |
| Major/Minor              | Minor2                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1316                                                                              | 486                                                                               | 486                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 486                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 830                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22                                                                              | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318                                                                             | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 174                                                                               | 581                                                                               | 1077                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 618                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 428                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 168                                                                               | 581                                                                               | 1077                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 301                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 595                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 428                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 12.4                                                                              | 0.4                                                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | EBLn1                                                                             | EBLn2                                                                             | SBT                                                                               | SBR                                                                               |
| Capacity (veh/h)         | 1077                                                                              | -                                                                                 | 301                                                                               | 581                                                                               | -                                                                                 | -                                                                                 |
| HCM Lane V/C Ratio       | 0.037                                                                             | -                                                                                 | 0.02                                                                              | 0.063                                                                             | -                                                                                 | -                                                                                 |
| HCM Control Delay (s)    | 8.5                                                                               | -                                                                                 | 17.2                                                                              | 11.6                                                                              | -                                                                                 | -                                                                                 |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    | 0.1                                                                               | -                                                                                 | 0.1                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 |

Build 2033 PM\_Mitigation\_2  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
11/16/2022

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |  |  |  |                                                                                     |  |  |  |
| Traffic Volume (vph)       | 6                                                                                 | 338                                                                               | 14                                                                                | 82                                                                                | 516                                                                               | 620                                                                               | 14                                                                                  | 73                                                                                  | 48                                                                                  | 353                                                                                 | 68                                                                                  | 5                                                                                   |
| Future Volume (vph)        | 6                                                                                 | 338                                                                               | 14                                                                                | 82                                                                                | 516                                                                               | 620                                                                               | 14                                                                                  | 73                                                                                  | 48                                                                                  | 353                                                                                 | 68                                                                                  | 5                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 200                                                                               | 115                                                                                 |                                                                                     | 0                                                                                   | 300                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 150                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.91                                                                              | 0.91                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.97                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.994                                                                             |                                                                                   |                                                                                   | 0.947                                                                             | 0.850                                                                             |                                                                                     | 0.944                                                                               |                                                                                     |                                                                                     | 0.987                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3518                                                                              | 0                                                                                 | 1770                                                                              | 3211                                                                              | 1441                                                                              | 1770                                                                                | 1758                                                                                | 0                                                                                   | 3433                                                                                | 1839                                                                                | 0                                                                                   |
| Flt Permitted              | 0.175                                                                             |                                                                                   |                                                                                   | 0.300                                                                             |                                                                                   |                                                                                   | 0.684                                                                               |                                                                                     |                                                                                     | 0.589                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 326                                                                               | 3518                                                                              | 0                                                                                 | 559                                                                               | 3211                                                                              | 1441                                                                              | 1274                                                                                | 1758                                                                                | 0                                                                                   | 2128                                                                                | 1839                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 104                                                                               | 395                                                                               |                                                                                     | 44                                                                                  |                                                                                     |                                                                                     | 7                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 622                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 14.1                                                                                |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 12                                                                                | 520                                                                               | 23                                                                                | 96                                                                                | 573                                                                               | 705                                                                               | 23                                                                                  | 94                                                                                  | 56                                                                                  | 420                                                                                 | 103                                                                                 | 10                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 44%                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 12                                                                                | 543                                                                               | 0                                                                                 | 96                                                                                | 883                                                                               | 395                                                                               | 23                                                                                  | 150                                                                                 | 0                                                                                   | 420                                                                                 | 113                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 24                                                                                  |                                                                                     |                                                                                     | 24                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 | 1                                                                                 | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              | Right                                                                             | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               | 20                                                                                | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 | 20                                                                                | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                             | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   | 6                                                                                 | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |



Build 2033 PM\_Mitigation\_2  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings  
11/16/2022

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase          | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 | 6                                                                                 | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              | 23.5                                                                              | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)         | 9.5                                                                               | 24.3                                                                              |                                                                                   | 9.5                                                                               | 24.3                                                                              | 24.3                                                                              | 9.5                                                                                 | 36.6                                                                                |                                                                                     | 9.6                                                                                 | 36.7                                                                                |                                                                                     |
| Total Split (%)         | 11.9%                                                                             | 30.4%                                                                             |                                                                                   | 11.9%                                                                             | 30.4%                                                                             | 30.4%                                                                             | 11.9%                                                                               | 45.8%                                                                               |                                                                                     | 12.0%                                                                               | 45.9%                                                                               |                                                                                     |
| Maximum Green (s)       | 6.0                                                                               | 18.8                                                                              |                                                                                   | 6.0                                                                               | 18.8                                                                              | 18.8                                                                              | 6.0                                                                                 | 31.1                                                                                |                                                                                     | 6.1                                                                                 | 31.2                                                                                |                                                                                     |
| Yellow Time (s)         | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               | 4.0                                                                               | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)        | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               | 1.5                                                                               | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               | 5.5                                                                               | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               | 3.0                                                                               | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               | Min                                                                               | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)           |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)     |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               | 9.0                                                                               |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr) |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effect Green (s)    | 26.4                                                                              | 20.8                                                                              |                                                                                   | 29.8                                                                              | 26.6                                                                              | 26.6                                                                              | 37.6                                                                                | 31.1                                                                                |                                                                                     | 41.7                                                                                | 37.3                                                                                |                                                                                     |
| Actuated g/C Ratio      | 0.33                                                                              | 0.26                                                                              |                                                                                   | 0.37                                                                              | 0.33                                                                              | 0.33                                                                              | 0.47                                                                                | 0.39                                                                                |                                                                                     | 0.52                                                                                | 0.47                                                                                |                                                                                     |
| v/c Ratio               | 0.06                                                                              | 0.59                                                                              |                                                                                   | 0.33                                                                              | 0.78                                                                              | 0.53                                                                              | 0.04                                                                                | 0.21                                                                                |                                                                                     | 0.35                                                                                | 0.13                                                                                |                                                                                     |
| Control Delay           | 16.5                                                                              | 29.6                                                                              |                                                                                   | 19.7                                                                              | 28.4                                                                              | 5.7                                                                               | 9.1                                                                                 | 12.3                                                                                |                                                                                     | 11.0                                                                                | 13.2                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 16.5                                                                              | 29.6                                                                              |                                                                                   | 19.7                                                                              | 28.4                                                                              | 5.7                                                                               | 9.1                                                                                 | 12.3                                                                                |                                                                                     | 11.0                                                                                | 13.2                                                                                |                                                                                     |
| LOS                     | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                 | C                                                                                 | A                                                                                 | A                                                                                   | B                                                                                   |                                                                                     | B                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 29.3                                                                              |                                                                                   |                                                                                   | 21.3                                                                              |                                                                                   |                                                                                     | 11.9                                                                                |                                                                                     |                                                                                     | 11.5                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 4                                                                                 | 128                                                                               |                                                                                   | 31                                                                                | 184                                                                               | 0                                                                                 | 5                                                                                   | 34                                                                                  |                                                                                     | 53                                                                                  | 26                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 8                                                                                 | 122                                                                               |                                                                                   | 58                                                                                | #360                                                                              | 67                                                                                | 11                                                                                  | 59                                                                                  |                                                                                     | 72                                                                                  | 46                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 542                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   | 200                                                                               | 115                                                                                 |                                                                                     |                                                                                     | 300                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 220                                                                               | 916                                                                               |                                                                                   | 298                                                                               | 1135                                                                              | 742                                                                               | 659                                                                                 | 710                                                                                 |                                                                                     | 1209                                                                                | 860                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.05                                                                              | 0.59                                                                              |                                                                                   | 0.32                                                                              | 0.78                                                                              | 0.53                                                                              | 0.03                                                                                | 0.21                                                                                |                                                                                     | 0.35                                                                                | 0.13                                                                                |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 4:NETL and 8:SWTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 20.4

Intersection LOS: C

Intersection Capacity Utilization 56.9%

ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                          |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 9.5 s                                                                                | 24.3 s                                                                               | 9.6 s                                                                                | 36.6 s                                                                                   |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 9.5 s                                                                                | 24.3 s                                                                               | 9.5 s                                                                                | 36.7 s                                                                                   |

Build 2033 PM\_Rosa Parks Extension\_Mitigation  
7: Scenic Dr/Universe Blvd & Rainbow Blvd

Lanes, Volumes, Timings

10/20/2022

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (vph)       | 5                                                                                 | 338                                                                               | 14                                                                                | 82                                                                                | 516                                                                               | 582                                                                               | 14                                                                                  | 74                                                                                  | 48                                                                                  | 328                                                                                 | 70                                                                                  | 5                                                                                   |
| Future Volume (vph)        | 5                                                                                 | 338                                                                               | 14                                                                                | 82                                                                                | 516                                                                               | 582                                                                               | 14                                                                                  | 74                                                                                  | 48                                                                                  | 328                                                                                 | 70                                                                                  | 5                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 0                                                                                 | 160                                                                               |                                                                                   | 0                                                                                 | 115                                                                                 |                                                                                     | 0                                                                                   | 125                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 50                                                                                |                                                                                   |                                                                                   | 60                                                                                |                                                                                   |                                                                                   | 20                                                                                  |                                                                                     |                                                                                     | 100                                                                                 |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.994                                                                             |                                                                                   |                                                                                   | 0.920                                                                             |                                                                                   |                                                                                     | 0.944                                                                               |                                                                                     |                                                                                     | 0.987                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3518                                                                              | 0                                                                                 | 1770                                                                              | 3256                                                                              | 0                                                                                 | 1770                                                                                | 1758                                                                                | 0                                                                                   | 1770                                                                                | 1839                                                                                | 0                                                                                   |
| Flt Permitted              | 0.129                                                                             |                                                                                   |                                                                                   | 0.330                                                                             |                                                                                   |                                                                                   | 0.682                                                                               |                                                                                     |                                                                                     | 0.586                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 240                                                                               | 3518                                                                              | 0                                                                                 | 615                                                                               | 3256                                                                              | 0                                                                                 | 1270                                                                                | 1758                                                                                | 0                                                                                   | 1092                                                                                | 1839                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 5                                                                                 |                                                                                   |                                                                                   | 336                                                                               |                                                                                   |                                                                                     | 36                                                                                  |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 529                                                                               |                                                                                   |                                                                                   | 473                                                                               |                                                                                   |                                                                                     | 218                                                                                 |                                                                                     |                                                                                     | 343                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 10.3                                                                              |                                                                                   |                                                                                   | 9.2                                                                               |                                                                                   |                                                                                     | 5.0                                                                                 |                                                                                     |                                                                                     | 7.8                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.50                                                                              | 0.65                                                                              | 0.62                                                                              | 0.85                                                                              | 0.90                                                                              | 0.88                                                                              | 0.62                                                                                | 0.78                                                                                | 0.85                                                                                | 0.84                                                                                | 0.66                                                                                | 0.50                                                                                |
| Adj. Flow (vph)            | 10                                                                                | 520                                                                               | 23                                                                                | 96                                                                                | 573                                                                               | 661                                                                               | 23                                                                                  | 95                                                                                  | 56                                                                                  | 390                                                                                 | 106                                                                                 | 10                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 10                                                                                | 543                                                                               | 0                                                                                 | 96                                                                                | 1234                                                                              | 0                                                                                 | 23                                                                                  | 151                                                                                 | 0                                                                                   | 390                                                                                 | 116                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 22                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | -5                                                                                |                                                                                   |                                                                                     | 15                                                                                  |                                                                                     |                                                                                     | -5                                                                                  |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 40                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                |                                                                                   | 9                                                                                 | 15                                                                                  |                                                                                     | 9                                                                                   | 15                                                                                  |                                                                                     | 9                                                                                   |
| Number of Detectors        | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     |
| Detector Template          | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                              | Thru                                                                              |                                                                                   | Left                                                                                | Thru                                                                                |                                                                                     | Left                                                                                | Thru                                                                                |                                                                                     |
| Leading Detector (ft)      | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 20                                                                                  | 100                                                                                 |                                                                                     | 20                                                                                  | 100                                                                                 |                                                                                     |
| Trailing Detector (ft)     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Position(ft)    | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Detector 1 Size(ft)        | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                | 6                                                                                 |                                                                                   | 20                                                                                  | 6                                                                                   |                                                                                     | 20                                                                                  | 6                                                                                   |                                                                                     |
| Detector 1 Type            | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                             | Cl+Ex                                                                             |                                                                                   | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     | Cl+Ex                                                                               | Cl+Ex                                                                               |                                                                                     |
| Detector 1 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 1 Extend (s)      | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Queue (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 1 Delay (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Detector 2 Position(ft)    |                                                                                   | 94                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |                                                                                     | 94                                                                                  |                                                                                     |                                                                                     | 94                                                                                  |                                                                                     |
| Detector 2 Size(ft)        |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |
| Detector 2 Type            |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                   | Cl+Ex                                                                             |                                                                                   |                                                                                     | Cl+Ex                                                                               |                                                                                     |                                                                                     | Cl+Ex                                                                               |                                                                                     |
| Detector 2 Channel         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Detector 2 Extend (s)      |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                   | 0.0                                                                               |                                                                                   |                                                                                     | 0.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                               | NA                                                                                  |                                                                                     | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 4                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |

|                                                                       |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                                                            | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NEL                                                                                 | NET                                                                                 | NER                                                                                 | SWL                                                                                 | SWT                                                                                 | SWR                                                                                 |
| Detector Phase                                                        | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |                                                                                     |
| Switch Phase                                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                               | 16.0                                                                              |                                                                                   | 3.0                                                                                 | 8.0                                                                                 |                                                                                     | 3.0                                                                                 | 8.0                                                                                 |                                                                                     |
| Minimum Split (s)                                                     | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                               | 23.5                                                                              |                                                                                   | 9.5                                                                                 | 36.5                                                                                |                                                                                     | 9.5                                                                                 | 36.5                                                                                |                                                                                     |
| Total Split (s)                                                       | 9.5                                                                               | 33.1                                                                              |                                                                                   | 9.7                                                                               | 33.3                                                                              |                                                                                   | 9.5                                                                                 | 36.8                                                                                |                                                                                     | 10.4                                                                                | 37.7                                                                                |                                                                                     |
| Total Split (%)                                                       | 10.6%                                                                             | 36.8%                                                                             |                                                                                   | 10.8%                                                                             | 37.0%                                                                             |                                                                                   | 10.6%                                                                               | 40.9%                                                                               |                                                                                     | 11.6%                                                                               | 41.9%                                                                               |                                                                                     |
| Maximum Green (s)                                                     | 6.0                                                                               | 27.6                                                                              |                                                                                   | 6.2                                                                               | 27.8                                                                              |                                                                                   | 6.0                                                                                 | 31.3                                                                                |                                                                                     | 6.9                                                                                 | 32.2                                                                                |                                                                                     |
| Yellow Time (s)                                                       | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                               | 4.0                                                                               |                                                                                   | 3.0                                                                                 | 4.0                                                                                 |                                                                                     | 3.0                                                                                 | 4.0                                                                                 |                                                                                     |
| All-Red Time (s)                                                      | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                               | 1.5                                                                               |                                                                                   | 0.5                                                                                 | 1.5                                                                                 |                                                                                     | 0.5                                                                                 | 1.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)                                                  | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                               | 5.5                                                                               |                                                                                   | 3.5                                                                                 | 5.5                                                                                 |                                                                                     | 3.5                                                                                 | 5.5                                                                                 |                                                                                     |
| Lead/Lag                                                              | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?                                                    | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Vehicle Extension (s)                                                 | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                               | 3.0                                                                               |                                                                                   | 1.5                                                                                 | 4.0                                                                                 |                                                                                     | 1.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Recall Mode                                                           | None                                                                              | Min                                                                               |                                                                                   | None                                                                              | Min                                                                               |                                                                                   | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               |                                                                                     |
| Walk Time (s)                                                         |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               |                                                                                   |                                                                                     | 7.0                                                                                 |                                                                                     |                                                                                     | 7.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                   | 9.0                                                                               |                                                                                   |                                                                                     | 24.0                                                                                |                                                                                     |                                                                                     | 24.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)                                               |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Act Effct Green (s)                                                   | 34.6                                                                              | 29.0                                                                              |                                                                                   | 38.2                                                                              | 34.9                                                                              |                                                                                   | 38.0                                                                                | 31.3                                                                                |                                                                                     | 43.6                                                                                | 38.8                                                                                |                                                                                     |
| Actuated g/C Ratio                                                    | 0.38                                                                              | 0.32                                                                              |                                                                                   | 0.42                                                                              | 0.39                                                                              |                                                                                   | 0.42                                                                                | 0.35                                                                                |                                                                                     | 0.48                                                                                | 0.43                                                                                |                                                                                     |
| v/c Ratio                                                             | 0.06                                                                              | 0.48                                                                              |                                                                                   | 0.29                                                                              | 0.84                                                                              |                                                                                   | 0.04                                                                                | 0.24                                                                                |                                                                                     | 0.67                                                                                | 0.15                                                                                |                                                                                     |
| Control Delay                                                         | 15.4                                                                              | 26.4                                                                              |                                                                                   | 17.6                                                                              | 25.0                                                                              |                                                                                   | 12.5                                                                                | 16.9                                                                                |                                                                                     | 23.4                                                                                | 17.0                                                                                |                                                                                     |
| Queue Delay                                                           | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay                                                           | 15.4                                                                              | 26.4                                                                              |                                                                                   | 17.6                                                                              | 25.0                                                                              |                                                                                   | 12.5                                                                                | 16.9                                                                                |                                                                                     | 23.4                                                                                | 17.0                                                                                |                                                                                     |
| LOS                                                                   | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                 | C                                                                                 |                                                                                   | B                                                                                   | B                                                                                   |                                                                                     | C                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay                                                        |                                                                                   | 26.2                                                                              |                                                                                   |                                                                                   | 24.5                                                                              |                                                                                   |                                                                                     | 16.3                                                                                |                                                                                     |                                                                                     | 21.9                                                                                |                                                                                     |
| Approach LOS                                                          |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)                                                | 3                                                                                 | 131                                                                               |                                                                                   | 32                                                                                | 235                                                                               |                                                                                   | 7                                                                                   | 45                                                                                  |                                                                                     | 140                                                                                 | 34                                                                                  |                                                                                     |
| Queue Length 95th (ft)                                                | 7                                                                                 | 121                                                                               |                                                                                   | 58                                                                                | #433                                                                              |                                                                                   | 13                                                                                  | 74                                                                                  |                                                                                     | 195                                                                                 | 56                                                                                  |                                                                                     |
| Internal Link Dist (ft)                                               |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 393                                                                               |                                                                                   |                                                                                     | 138                                                                                 |                                                                                     |                                                                                     | 263                                                                                 |                                                                                     |
| Turn Bay Length (ft)                                                  | 140                                                                               |                                                                                   |                                                                                   | 160                                                                               |                                                                                   |                                                                                   | 115                                                                                 |                                                                                     |                                                                                     | 125                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)                                                   | 197                                                                               | 1135                                                                              |                                                                                   | 340                                                                               | 1469                                                                              |                                                                                   | 587                                                                                 | 634                                                                                 |                                                                                     | 586                                                                                 | 797                                                                                 |                                                                                     |
| Starvation Cap Reductn                                                | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn                                                 | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio                                                     | 0.05                                                                              | 0.48                                                                              |                                                                                   | 0.28                                                                              | 0.84                                                                              |                                                                                   | 0.04                                                                                | 0.24                                                                                |                                                                                     | 0.67                                                                                | 0.15                                                                                |                                                                                     |
| Intersection Summary                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type: Other                                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Cycle Length: 90                                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length: 90                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Offset: 0 (0%), Referenced to phase 4:NETL and 8:SWTL, Start of Green |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Natural Cycle: 90                                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type: Actuated-Coordinated                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Maximum v/c Ratio: 0.84                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Signal Delay: 23.8 Intersection LOS: C                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization 77.1% ICU Level of Service D        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min) 15                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| # 95th percentile volume exceeds capacity, queue may be longer.       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Queue shown is maximum after two cycles.

Splits and Phases: 7: Scenic Dr/Universe Blvd & Rainbow Blvd

|                                                                                      |                                                                                      |                                                                                      |                                                                                          |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 (R) |
| 9.7 s                                                                                | 33.1 s                                                                               | 10.4 s                                                                               | 36.8 s                                                                                   |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 (R) |
| 9.5 s                                                                                | 33.3 s                                                                               | 9.5 s                                                                                | 37.7 s                                                                                   |

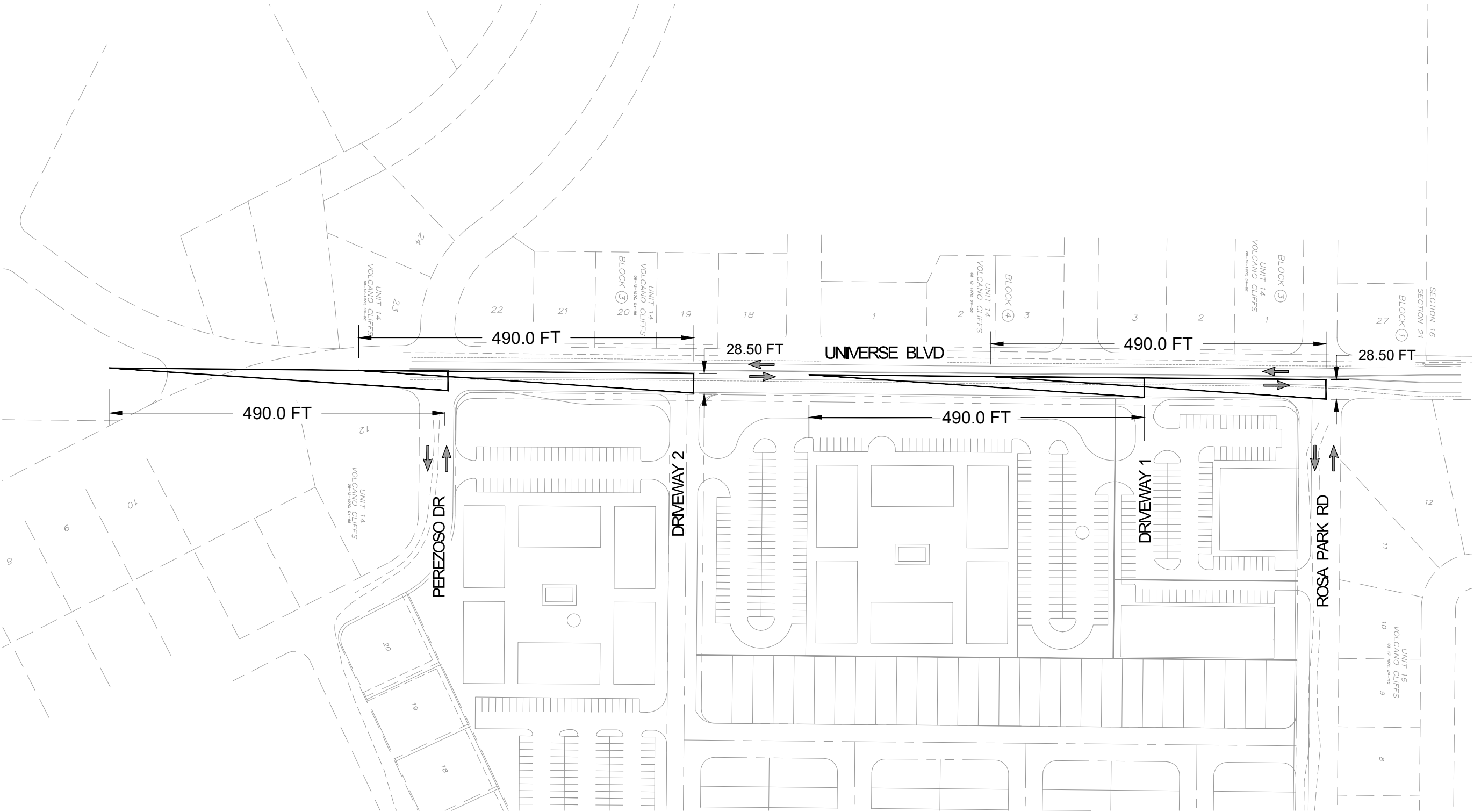
# **APPENDIX Q**

## **Intersection Sight Distance Analysis**

Legend

← TRAFFIC FLOW DIRECTION

SCALE: 1 IN. = 150 FT.



Universe View Subdivision  
Clear Sight Distance  
Right Turn Departure Sight Triangles

Figure  
Number

1

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