



# TRAFFIC IMPACT STUDY

## GIBSON & YALE COMMERCIAL

Albuquerque, New Mexico

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- A. Full Sized Conceptual Site Plan
- B. Study Scope Meeting Notes
- C. LOS Descriptions
- D. Traffic Counts
- E. Existing Synchro Outputs
- F. Background (without site development) Synchro Outputs
- G. Future (with site development) Synchro Outputs

## **Executive Summary**

### **Site Location and Study Area**

The property that comprises the application area for the proposed development is approximately 7.18 acres in size and is identified as Bernalillo County Parcel Numbers 101505550050811601 through 101505550050811603. It is located south of Gibson Boulevard, west of Yale Boulevard, north of Miles Road, and east of Walker Road. It is zoned Non-Residential Commercial (NR-C) and is currently occupied by an offsite airport parking lot.

The study area, as discussed and agreed upon by City of Albuquerque staff (Staff), is generally bounded by Gibson Boulevard to the north, Yale Boulevard to the east, Miles Road to the south, and Walker Road to the west. The study area for the project includes those intersections identified by Staff that could be affected by the proposed development:

- Gibson Boulevard/Yale Boulevard
- Miles Road/Yale Boulevard
- Gibson Boulevard/Walker Road
- Miles Road/Walker Road
- Proposed Site Accesses

### **Description of Proposed Development**

The Applicant, Prime Properties, seeks to develop the property with a mix of commercial uses. Site access is being proposed via two right-in/right-out movements along Gibson Boulevard and three full movement accesses along Miles Road.

## **Conclusions and Recommendations**

### **Conclusions**

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the intersections within the study area currently operate at overall acceptable levels of service (LOS) "E" or better during the weekday AM and PM peak hours.
- Under background future 2023 and 2040 traffic conditions, without the development of the subject site, delays would increase slightly at study intersections due to regional traffic growth.
- The proposed site development would generate, upon completion and full occupancy, 676 net new weekday AM and 479 net new weekday PM peak hour vehicle trips as well as 8,325 net new weekday daily trips.
- Under total future traffic conditions with development of the site, the Miles Road/Yale Boulevard intersection would require improvements to operate with acceptable levels of service and sufficient queueing.

## Recommendations

- The Applicant should construct their entrances along Gibson Boulevard and Miles Road consistent with the attached plan.
- The following improvements should be constructed at the Miles Road/Yale Boulevard intersection:
  - Dedicated eastbound right turn lane (100' of storage)
  - Dedicated northbound left turn lane (200' of storage)

## I. Introduction

### Overview

This report presents the results of a Traffic Impact Study (TIS) conducted in support of a site plan to develop commercial uses in Albuquerque, New Mexico. Currently, the site is occupied by an offsite airport parking lot.

Per the requirements of the City of Albuquerque Development Process Manual (DPM) Section 7-5(C)(2) - TIS Warranting Criteria a TIS is required if a project will generate 100 AM or PM peak hour trips per day. The proposed development would generate trips in excess of the warranting criteria threshold and therefore a TIS is required for the development application for the proposed uses and access to the site.

The basis of this traffic impact assessment includes confirmation of the study area by City Staff, discussion with the New Mexico Department of Transportation (NMDOT) as well as information from nearby developments and information from the Applicant including preliminary site concepts.

### Site Location and Study Area

The property that comprises the application area for the proposed development is approximately 7.18 acres in size and is identified as Bernalillo County Parcel Numbers 101505550050811601 through 101505550050811603. It is located south of Gibson Boulevard, west of Yale Boulevard, north of Miles Road, and east of Walker Road, as shown on Figure 1-1. It is zoned Non-Residential Commercial (NR-C) and is currently occupied by an offsite airport parking lot. Site access is being proposed via two right-in/right-out movements along Gibson Boulevard and three full movement accesses along Miles Road.

The Applicant, Prime Properties, seeks to develop the property with a mix of commercial uses. A reduction of the Applicant's proposed conceptual site plan is provided on Figure 1-2. A full-size copy of the plan is provided in Appendix A.

The study area, as provided by Meeting Notes provided by the City's traffic engineer, is generally bounded by Gibson Boulevard to the north, Yale Boulevard to the west, Miles Road to the south, and Walker Road to the west.

Tasks undertaken in the course of this study included the following:

1. Reviewed the Applicant's proposed development plans and other background data.
2. Conducted a virtual field reconnaissance of existing roadway and intersection geometries, traffic controls, and speed limits.
3. Conducted peak hour turning movement counts at the key intersections for the AM and PM peak hours.
4. Analyzed existing levels of service at each of the key study intersections based on the methodologies set forth in the Highway Capacity Guidelines 6<sup>th</sup> Edition and Highway Capacity Guidelines 2000 Edition as reported by Synchro version 11.
5. Forecasted background future traffic volumes based on baseline traffic counts and regional traffic growth for 2023 and 2040 build-out conditions.

6. \*Calculated background levels of service at each of the key study intersections for the projected build-out years based on background future traffic forecasts, and the background future lane use and traffic controls.
7. Estimated the number of AM and PM peak hour trips that would be generated by the proposed use(s) based on ITE 10<sup>th</sup> Generation Trip Generation Rates and methodologies.
8. Prepared AM and PM peak hour total future traffic forecasts based on background traffic forecasts plus site traffic assignments for the 2023 (buildout year) as well as 2040 (long range) conditions.
9. Calculated total future levels of service for each of the key study intersections based on projected total future traffic forecasts, existing/future traffic controls and intersection geometries.
10. Identified roadway improvements required to accommodate future traffic volumes as necessary.

Sources of data for this analysis included the Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th edition, the Highway Capacity Manual (HCM), Prime Properties, City of Albuquerque, New Mexico, and the files/library of Galloway.

## Site Description and Access

### **Site Conditions**

The terrain proximate to and surrounding the site is generally classified as “level”.

### **Hazardous Conditions**

Based on the field reconnaissance in the vicinity of the subject site, no hazardous features or constraints were identified.

### **Proposed Site Access**

Access to the site is being proposed via two right-in/right-out movements along Gibson Boulevard, and three full movement accesses along Miles Road.

### **Existing Zoning**

The subject site is currently zoned NR-C and is currently occupied by an offsite airport parking lot. Figure 1-3 depicts the existing zoning associated with the subject property, as well as neighboring properties as shown on the City of Albuquerque zoning map.

### **Nearby Uses**

The properties surrounding the subject site are generally developed with mixed-uses including commercial uses to the east/northeast, office uses to the south, and residential uses to the west/northwest.

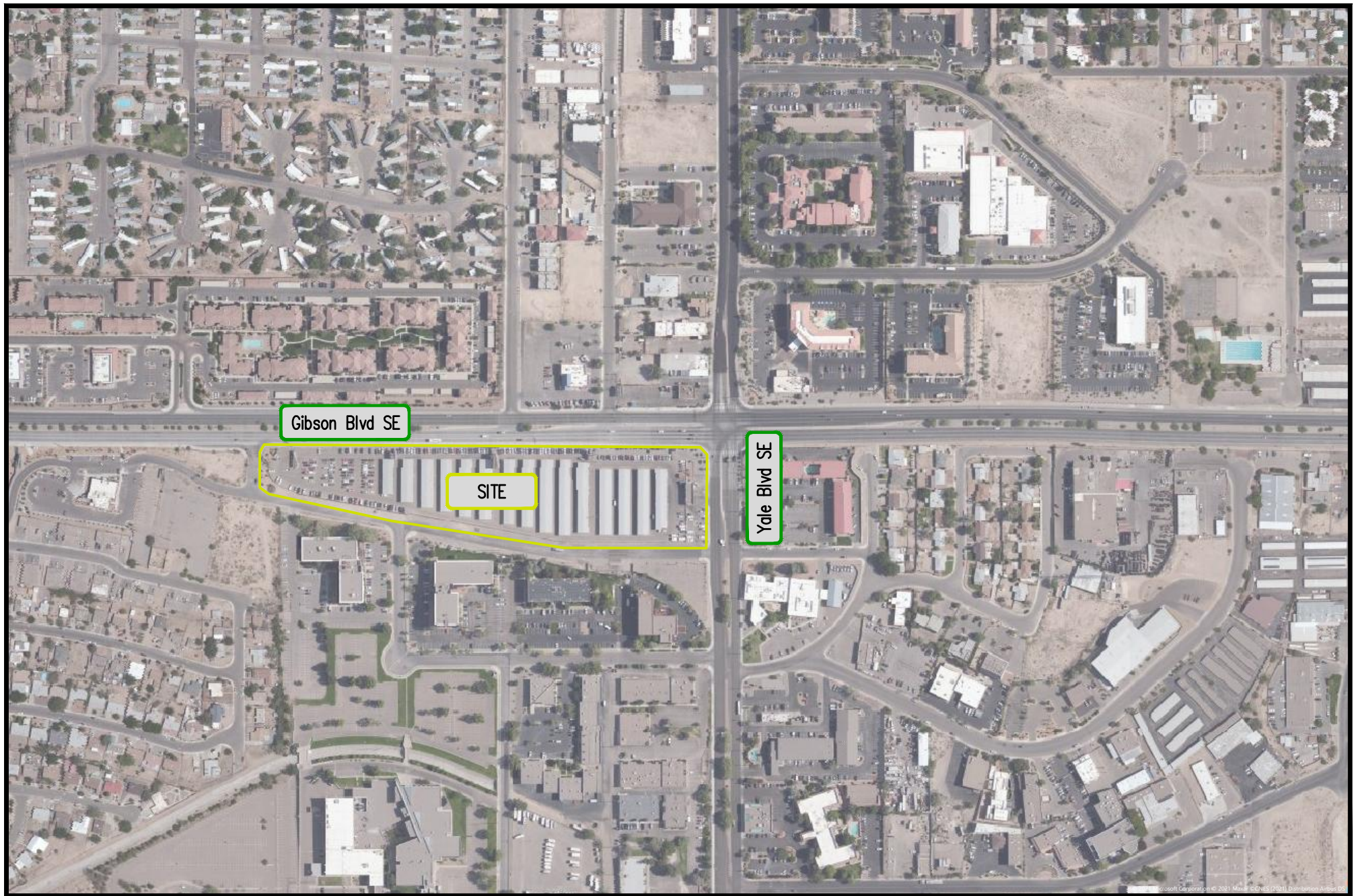


FIGURE 1-1  
Site Location

Gibson Yale  
Albuquerque, NM



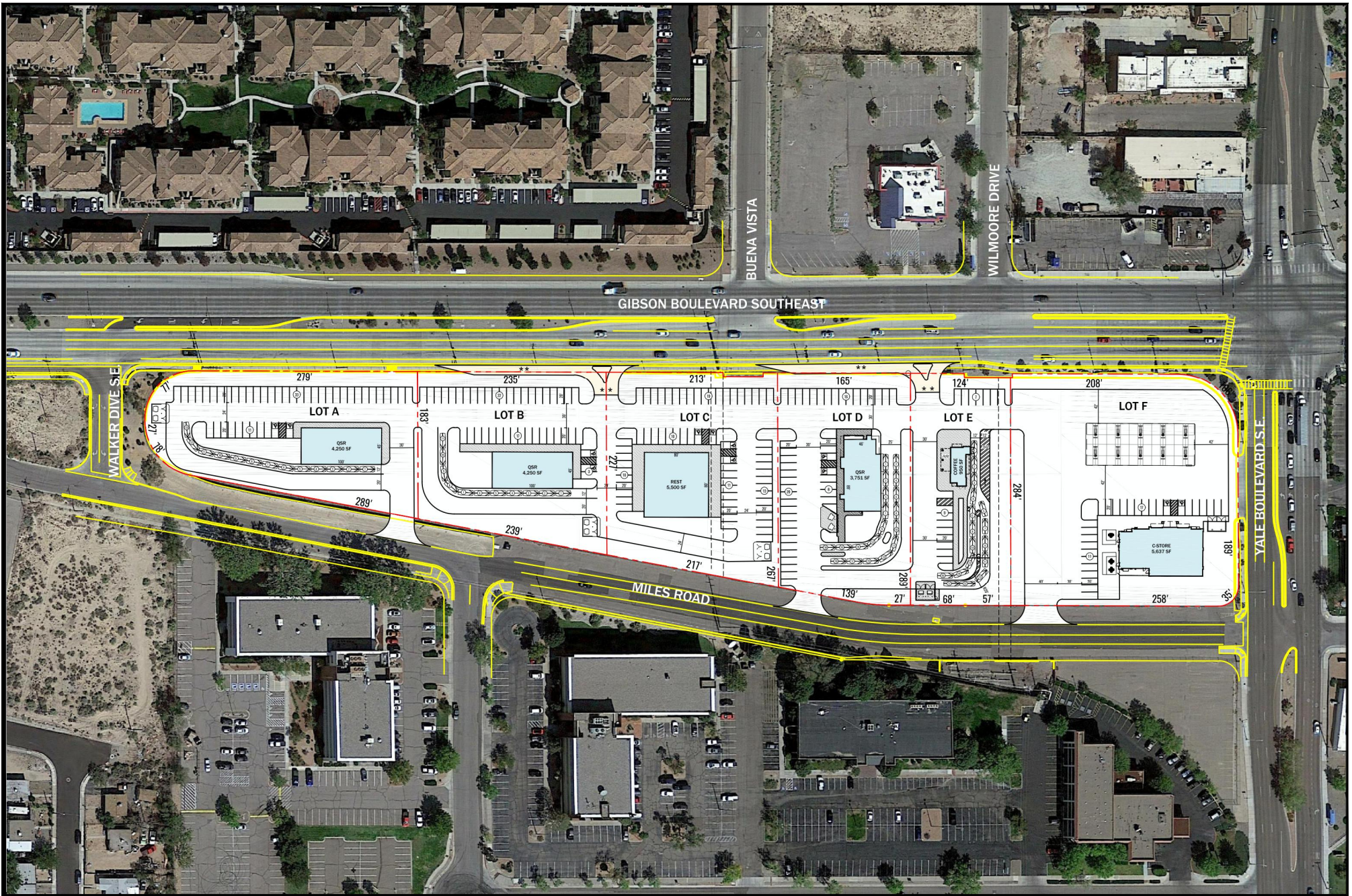


FIGURE 1-2  
Site Plan

Gibson Yale  
Albuquerque, NM



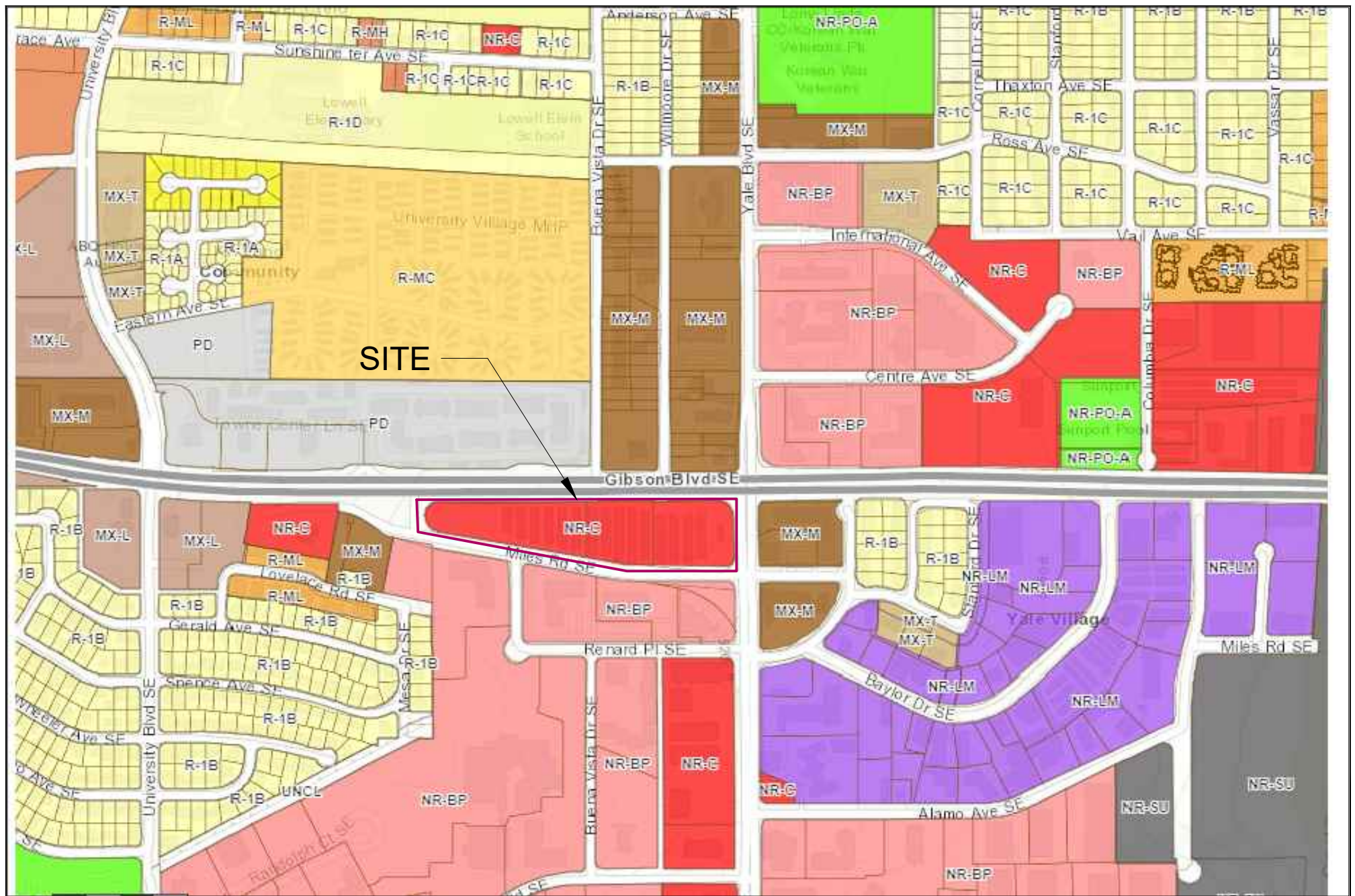


FIGURE 1-3  
Existing Zoning

Gibson Yale  
Albuquerque, NM



## II. Background Information

### Study Area

The study area was defined via scoping discussions held at the beginning of the traffic study. These correspondences and scoping documents are provided as Appendix B. As provided, the traffic study focuses primarily on the following intersections:

#### **Study Intersections**

- Gibson Boulevard/Yale Boulevard
- Miles Road/Yale Boulevard
- Gibson Boulevard/Walker Road
- Miles Road/Walker Road
- Proposed Site Accesses

### Study Assumptions

For purposes of this analysis only, the proposed uses are assumed to be built and occupied in one distinct phase. It was assumed that phase one uses would be built and operational in study year 2023. As requested by Staff, a long-term analysis of 2040 was also provided.

### Study Methodology

Synchro software version 11 was used to evaluate levels of service at each of the study intersections during the weekday AM and PM peak hours. Synchro is a macroscopic model used for optimizing traffic signal timing and performing capacity analyses. The software can model existing traffic signal timings or optimize splits, offsets, and cycle lengths for individual intersections, an arterial, or a complete network. Synchro allows the user to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings as well as optimize traffic signal timings.

The levels of service reported for the signalized and unsignalized intersections analyzed herein were taken from the Highway Capacity Manual (HCM) reports generated by Synchro 11. Level of service descriptions are included in Appendix C.

In order to maintain a conservative analysis a default percent heavy vehicle (%HV) factor of 2% was used for all movements in the study area.

### Existing Roadway Network

Regional access to the subject site is provided by Gibson Boulevard, and local access is provided via Yale Boulevard. Figure 2-1 depicts existing lane use and traffic controls in the vicinity of the subject site. The following provides a description of each of the roadways within the study network.

#### **Gibson Boulevard**

Gibson Boulevard is constructed as a six-lane median divided section with turn lanes at major intersections. The posted speed limit is 45 mph in the vicinity of the subject site. The roadway functions as an Urban Principal Arterial and provides east west connection through the City. The intersection with Yale Boulevard operates under signal control.

### **Yale Boulevard**

Yale Blvd is constructed as a median divided section with turn lanes at major intersections. The posted speed limit is 30 mph in the vicinity of the subject site. The roadway functions as an Urban Minor Arterial providing north-south connection through the City. The intersection with Gibson Boulevard operates under signal control.

### **Assumed Improvements**

No funded/programmed roadway improvements were identified at the study intersections.

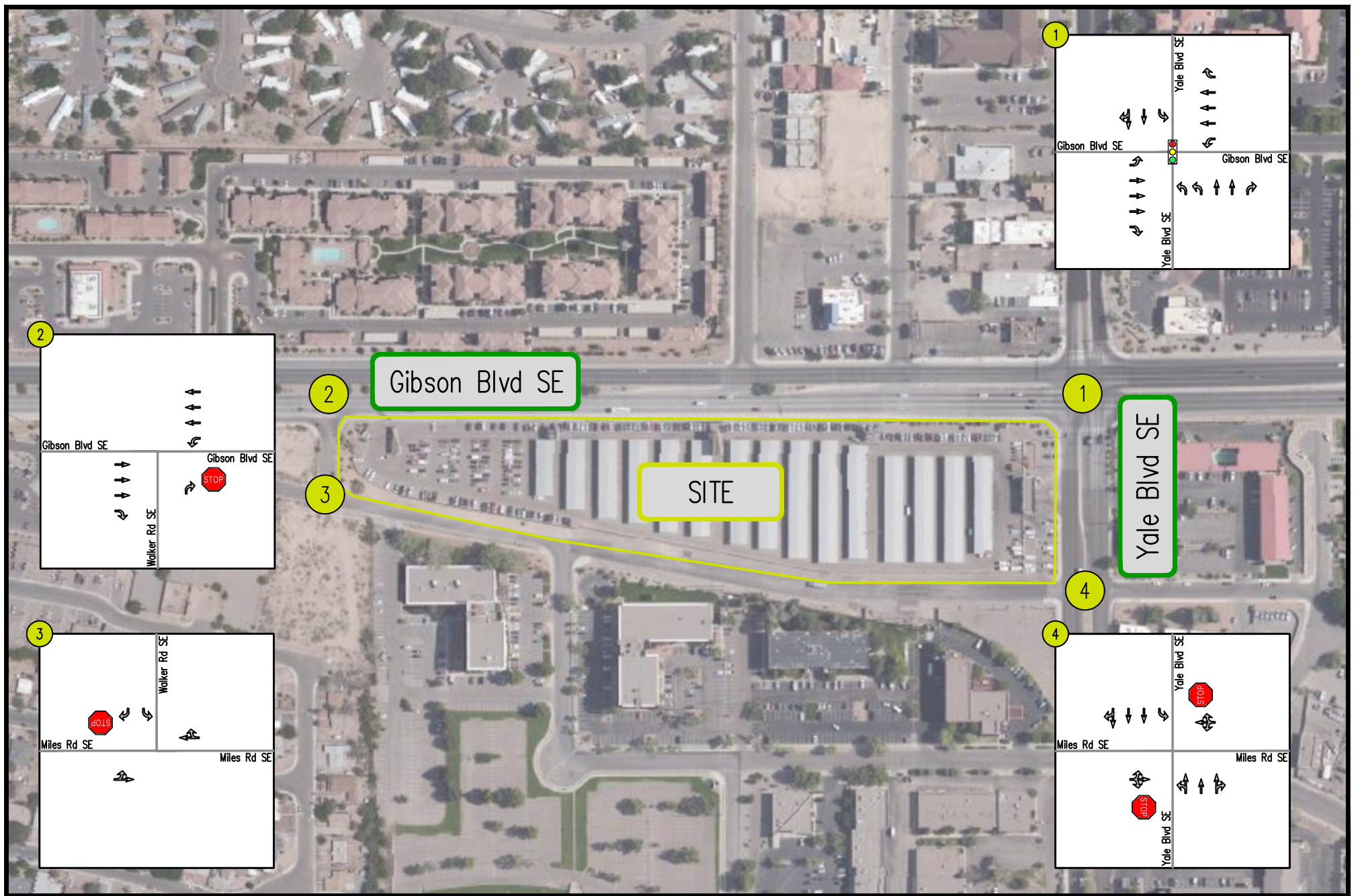


FIGURE 2-1  
Existing Lane Use and Traffic Control

### **III. Analysis of Existing Conditions**

#### **Traffic Volumes**

Weekday AM and PM peak hour traffic volumes counts were conducted on Wednesday June 23, 2021 from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM at the study intersections by IDAX Data Solutions.

For purposes of this study, the peak hour of the network was selected based on a review of the intersection volumes. These volumes were balanced to the greatest volumes observed in order to provide a conservative analysis.

The existing volumes are summarized on Figure 3-1. Copies of traffic counts are included in Appendix D. Existing peak hour factors (PHF) were also computed by approach from the traffic counts and applied to the analysis with a minimum of 0.85 and a maximum of 0.92.

#### **Operational Analysis**

Capacity/level of service (LOS) analyses were conducted at the study intersections based on the existing lane use and traffic controls shown on Figure 2-1 and existing baseline vehicular traffic volumes shown on Figure 3-1. The capacity analysis results are presented in Appendix E and summarized in Table 3-1 and on Figure 3-2.

As shown in Table 3-1, the study intersections currently operate at overall acceptable levels of service (LOS) "E" or better during the weekday peak hours.

#### **Existing Intersection Queues**

An analysis of intersection 95<sup>th</sup>-percentile queues was performed at key locations. The results of the queuing analysis, as reported by Synchro, are summarized in Table 3-2.

As shown in the table, the existing queues are generally contained within the effective storage within the study area.

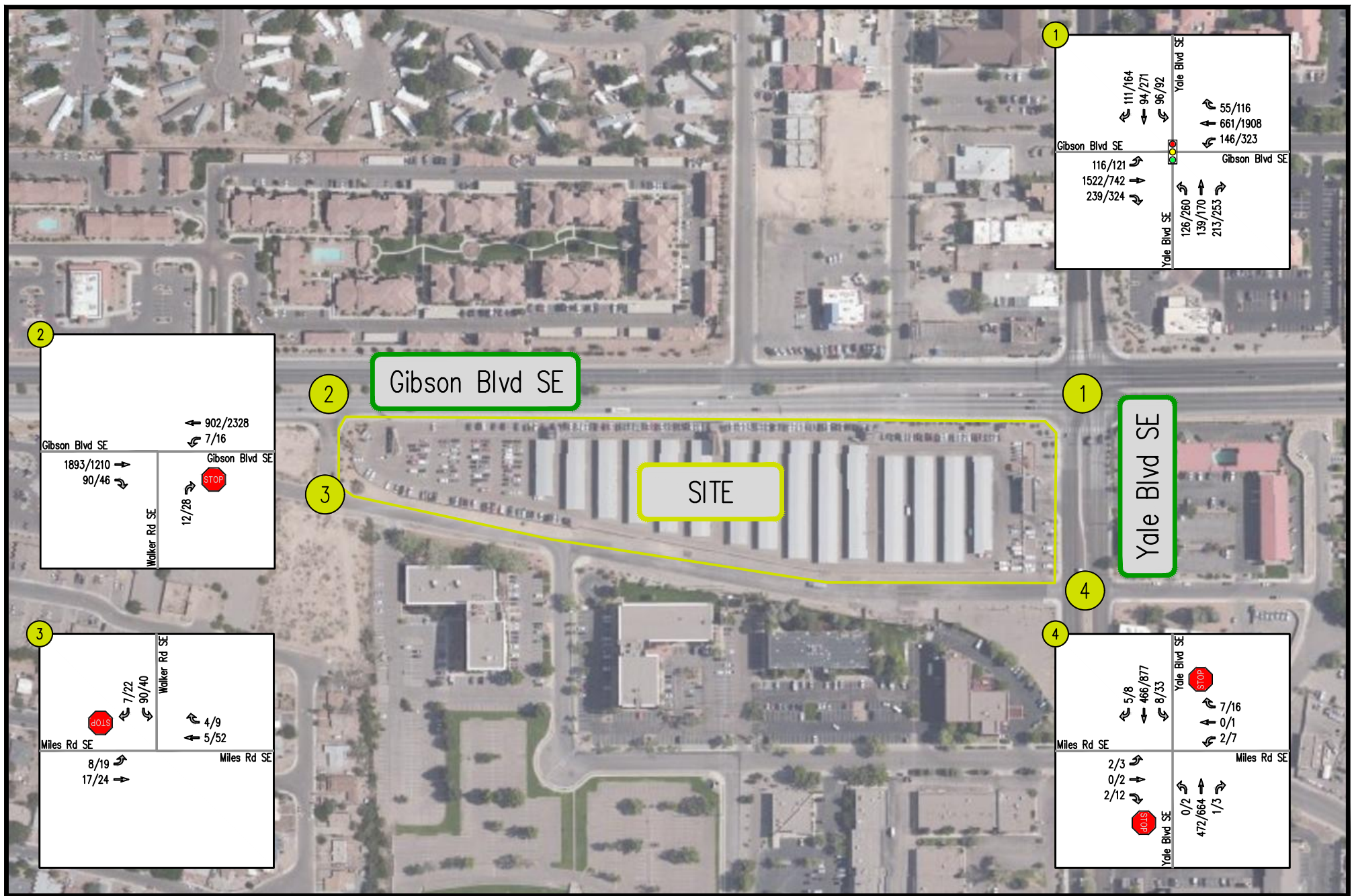


FIGURE 3-1  
Existing Volumes

Gibson Yale  
Albuquerque, NM

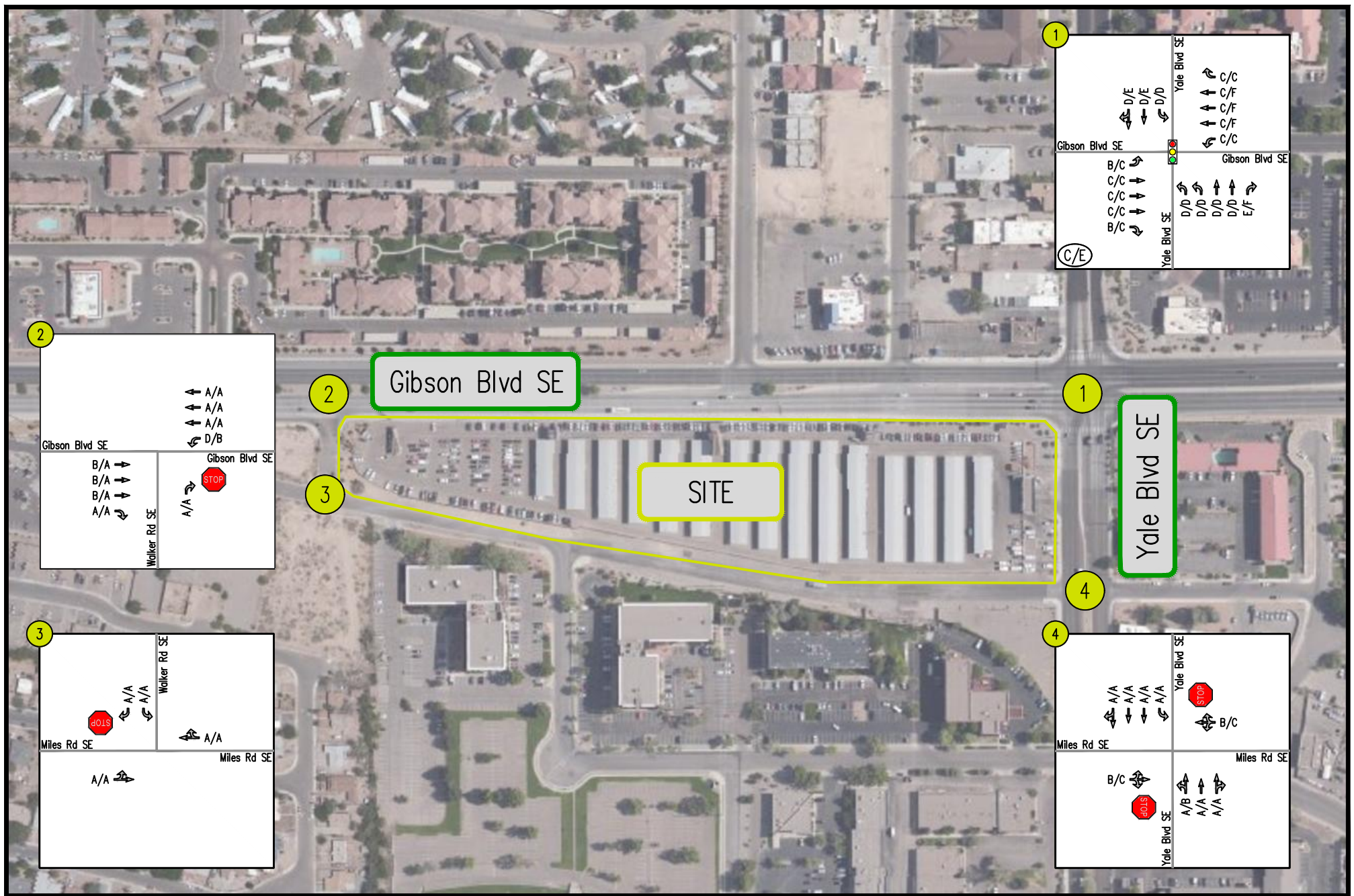


FIGURE 3-2  
Existing LOS

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
 SIGNALIZED INTERSECTION  
 STOP SIGN  
 YIELD SIGN



Table 3-1  
Gibson Yale  
Existing Intersection Level of Service Summary (1) (2)

| Intersection            | Operating Condition | Street Name     | Approach/<br>Movement | Existing 2021   |                 |
|-------------------------|---------------------|-----------------|-----------------------|-----------------|-----------------|
|                         |                     |                 |                       | AM<br>Peak Hour | PM<br>Peak Hour |
| 1 Gibson Blvd/Yale Blvd | Signal              | Gibson Blvd     | EBL                   | B (12.5)        | C (22.5)        |
|                         |                     |                 | EBT                   | C (23.4)        | C (25.9)        |
|                         |                     |                 | EBR                   | B (19.0)        | C (30.3)        |
|                         |                     | Gibson Blvd     | WBL                   | C (25.2)        | C (24.8)        |
|                         |                     |                 | WBT                   | C (28.9)        | F (118.2)       |
|                         |                     |                 | WBR                   | C (25.6)        | C (30.6)        |
|                         |                     | Yale Blvd       | NBL                   | D (38.6)        | D (41.9)        |
|                         |                     |                 | NBT                   | D (43.7)        | D (45.3)        |
|                         |                     |                 | NBR                   | E (72.9)        | F (81.5)        |
|                         |                     | Yale Blvd       | SBL                   | D (38.3)        | D (41.8)        |
|                         |                     |                 | SBT                   | D (43.3)        | E (65.7)        |
|                         | SBR                 | <u>D (44.6)</u> | <u>E (70.1)</u>       |                 |                 |
|                         | Overall             |                 | <b>C (29.9)</b>       | <b>E (72.0)</b> |                 |
| 2 Gibson Blvd/Walker Rd | STOP                | Gibson Blvd     | EBT                   | B [10.3]        | A [4.4]         |
|                         |                     |                 | EBR                   | A [8.9]         | A [4.0]         |
|                         |                     | Gibson Blvd     | WBL                   | D [28.3]        | B [12.3]        |
|                         |                     |                 | WBT                   | A [1.7]         | A [2.4]         |
|                         |                     | Walker Rd       | NBR                   | A [9.5]         | A [7.7]         |
| 3 Miles Rd/Walker Rd    | STOP                | Miles Rd        | EBLT                  | A [7.2]         | A [7.4]         |
|                         |                     |                 | WBTR                  | A [0.0]         | A [0.0]         |
|                         |                     | Walker Rd       | SBL                   | A [9.2]         | A [9.5]         |
|                         |                     |                 | SBR                   | A [8.4]         | A [8.7]         |
| 4 Miles Rd/Yale Blvd    | STOP                | Miles Rd        | EBLTR                 | B [13.8]        | C [23.0]        |
|                         |                     |                 | WBLTR                 | B [11.3]        | C [18.5]        |
|                         |                     | Yale Blvd       | NBL                   | A [0.0]         | B [13.9]        |
|                         |                     |                 | NBTR                  | A [0.0]         | A [0.1]         |
|                         |                     | Yale Blvd       | SBL                   | A [0.0]         | A [9.3]         |
|                         |                     |                 | SBTR                  | A [0.0]         | A [0.0]         |

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

\*SimTraffic used to evaluate to accurately reflect operations due to platooning from nearby signals

Table 3-2  
Gibson Yale  
Existing Intersection Queueing Summary (1)

| Intersection            | Operating Condition | Street Name | Approach/ Movement | Available Storage | Existing 2021 |              |
|-------------------------|---------------------|-------------|--------------------|-------------------|---------------|--------------|
|                         |                     |             |                    |                   | AM Peak Hour  | PM Peak Hour |
| 1 Gibson Blvd/Yale Blvd | Signal              | Gibson Blvd | EBL                | -                 | 65            | 90           |
|                         |                     |             | EBT                | -                 | 469           | 283          |
|                         |                     |             | EBR                | 240               | 107           | 8            |
|                         |                     |             | WBL                | 400               | 119           | 238          |
|                         |                     | Gibson Blvd | WBT                | -                 | 241           | 1116         |
|                         |                     |             | WBR                | 200               | 0             | 68           |
|                         |                     |             | NBL                | -                 | 63            | 112          |
|                         |                     |             | NBT                | -                 | 90            | 100          |
|                         |                     | Yale Blvd   | NBR                | -                 | 75            | 72           |
|                         |                     |             | SBL                | 200               | 103           | 93           |
|                         |                     |             | SBT                | -                 | 74            | 216          |
|                         |                     |             |                    |                   |               |              |
| 2 Gibson Blvd/Walker Rd | STOP                | Gibson Blvd | EBT                | -                 | 378           | 0            |
|                         |                     |             | EBR                | 125               | 0             | 7            |
|                         |                     | Gibson Blvd | WBL                | 175               | 23            | 22           |
|                         |                     |             | WBT                | -                 | 0             | 0            |
|                         |                     |             | NBR                | -                 | 25            | 37           |
| 3 Miles Rd/Walker Rd    | STOP                | Miles Rd    | EBLT               | -                 | 0             | 0            |
|                         |                     |             | WBTR               | -                 | 0             | 0            |
|                         |                     | Walker Rd   | SBL                | -                 | 7.5           | 5            |
|                         |                     |             | SBR                | -                 | 0             | 2.5          |
|                         |                     |             |                    |                   |               |              |
| 4 Miles Rd/Yale Blvd    | STOP                | Miles Rd    | EBLTR              | -                 | 0             | 7.5          |
|                         |                     |             | WBLTR              | -                 | 2.5           | 7.5          |
|                         |                     | Yale Blvd   | NBLT               | -                 | 0             | 0            |
|                         |                     |             | NBR                | -                 | 0             | 0            |
|                         |                     |             | SBL                | 60                | 0             | 2.5          |
|                         |                     | Yale Blvd   | SBTR               | -                 | 0             | 0            |
|                         |                     |             |                    |                   |               |              |

Notes : (1) Queue length is based on the 95th percentile queue as reported by Synchro, Version 10.

\*SimTraffic used to evaluate to accurately reflect operations due to platooning from nearby signals

## **IV. Analysis of Future Conditions without Site Development**

### **Methodology**

The future traffic forecasts, without the proposed new use, were developed for 2023 and 2040 conditions based on a composite of existing baseline traffic volumes and regional traffic. A 0.5% growth factor per year was applied to existing traffic along Gibson Boulevard and Yale Boulevard consistent with New Mexico's Transportation Analysis & Querying Application (TAQA) data.

### **Regional Growth**

Increases in traffic associated with regional growth were estimated at 0.5 percent per year compounded for through movements along Gibson Boulevard and Yale Boulevard up to 2023 as well as to 2040. This growth accounts for increases in traffic resulting from influences outside of the immediate study area. This growth factor is consistent with TAQA data. This factor was utilized to calculate the percent growth per year. The resulting increases in traffic within the study area are reflected on Figure 4-1 for 2023 build-out year conditions and Figure 4-2 for 2040 long range conditions.

### **Background Traffic Forecasts**

The existing traffic forecasts depicted on Figure 3-1 and the regional growth shown on Figure 4-1 (2023) and Figure 4-2 (2040) were added together to yield the background future traffic forecasts shown on Figure 4-3 for 2023 conditions and Figure 4-4 for 2040 conditions.

### **Background Future Levels of Service**

Capacity analyses of 2023 and 2040 future traffic conditions without the proposed development are provided in Appendix F and summarized in Table 4-1. The forecasted levels of service are also depicted graphically on Figure 4-5 for 2023 conditions and Figure 4-6 for 2040 conditions.

As shown on Table 4-1, the intersections within the study area would continue to operate at overall acceptable levels of service ("E" or better) during the AM and PM peak hours, consistent with existing conditions in the 2023 background conditions. The signalized intersection would operate at or exceeding capacity, LOS F, in the background 2040 condition in the PM peak hour. Increases in delay are forecasted due to growth along the arterials within the study area.

### **Background Future Queueing**

An analysis of intersection queues was performed at key locations under background future traffic conditions. The results of the queuing analysis are summarized in Table 4-2.

As shown in the table, queues within the study network are forecasted to be accommodate by the existing available storage. Queues would experience minor increases due to increases in delay mentioned above.

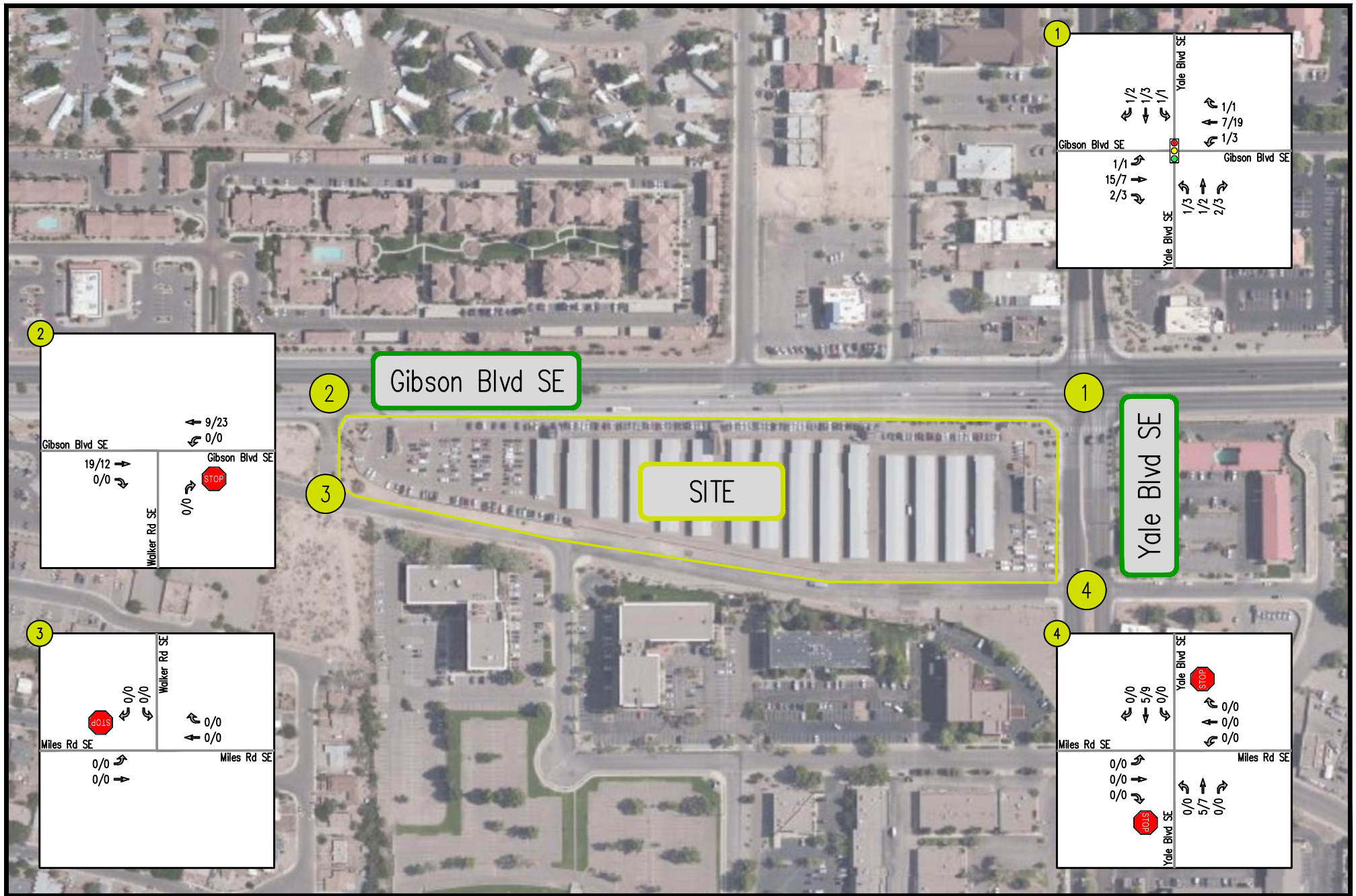


FIGURE 4-1  
Growth 2023

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
 SIGNALIZED INTERSECTION  
 STOP SIGN  
 YIELD SIGN



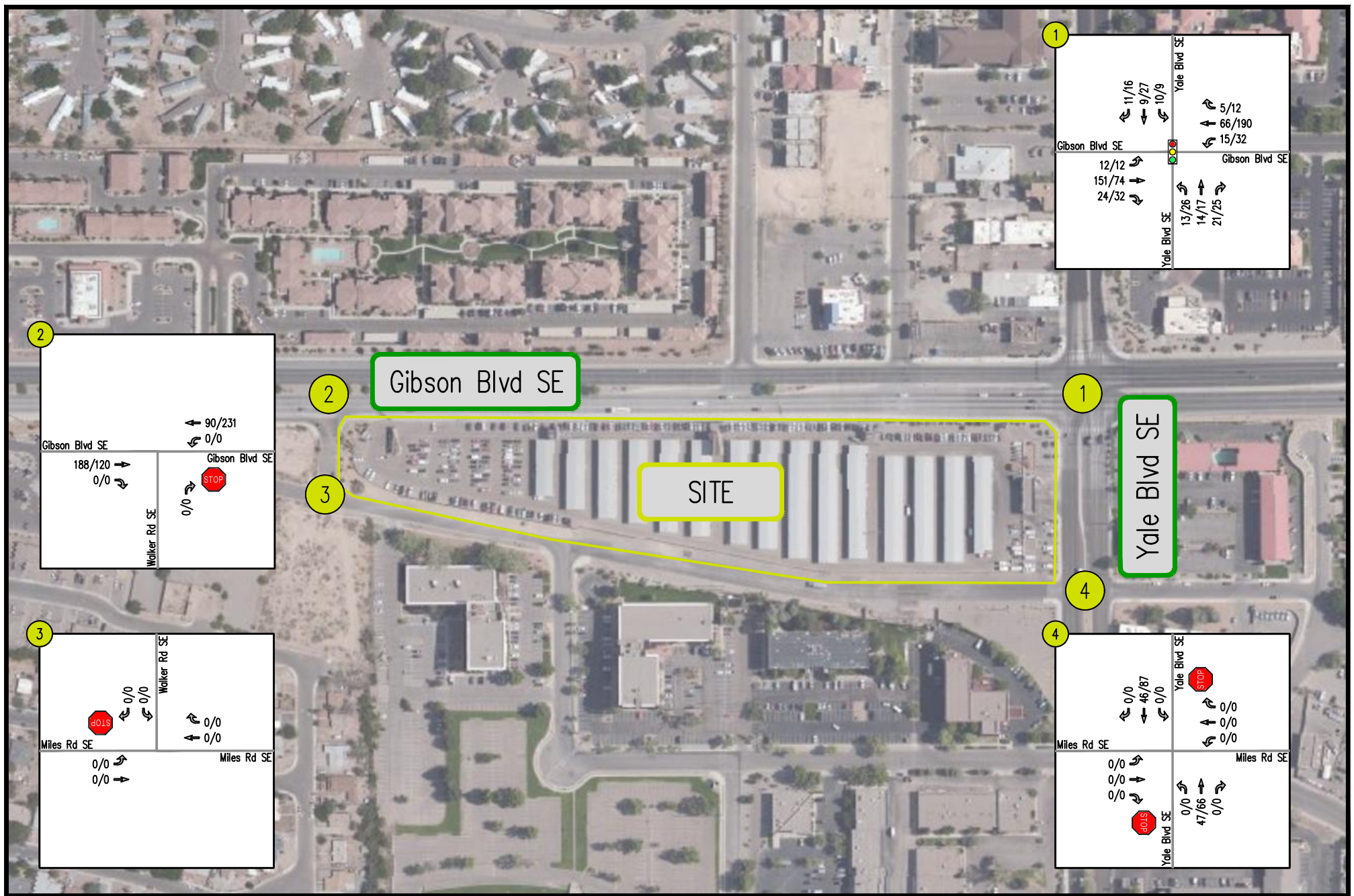


FIGURE 4-2  
Growth 2040

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
 SIGNALIZED INTERSECTION  
 STOP SIGN  
 YIELD SIGN



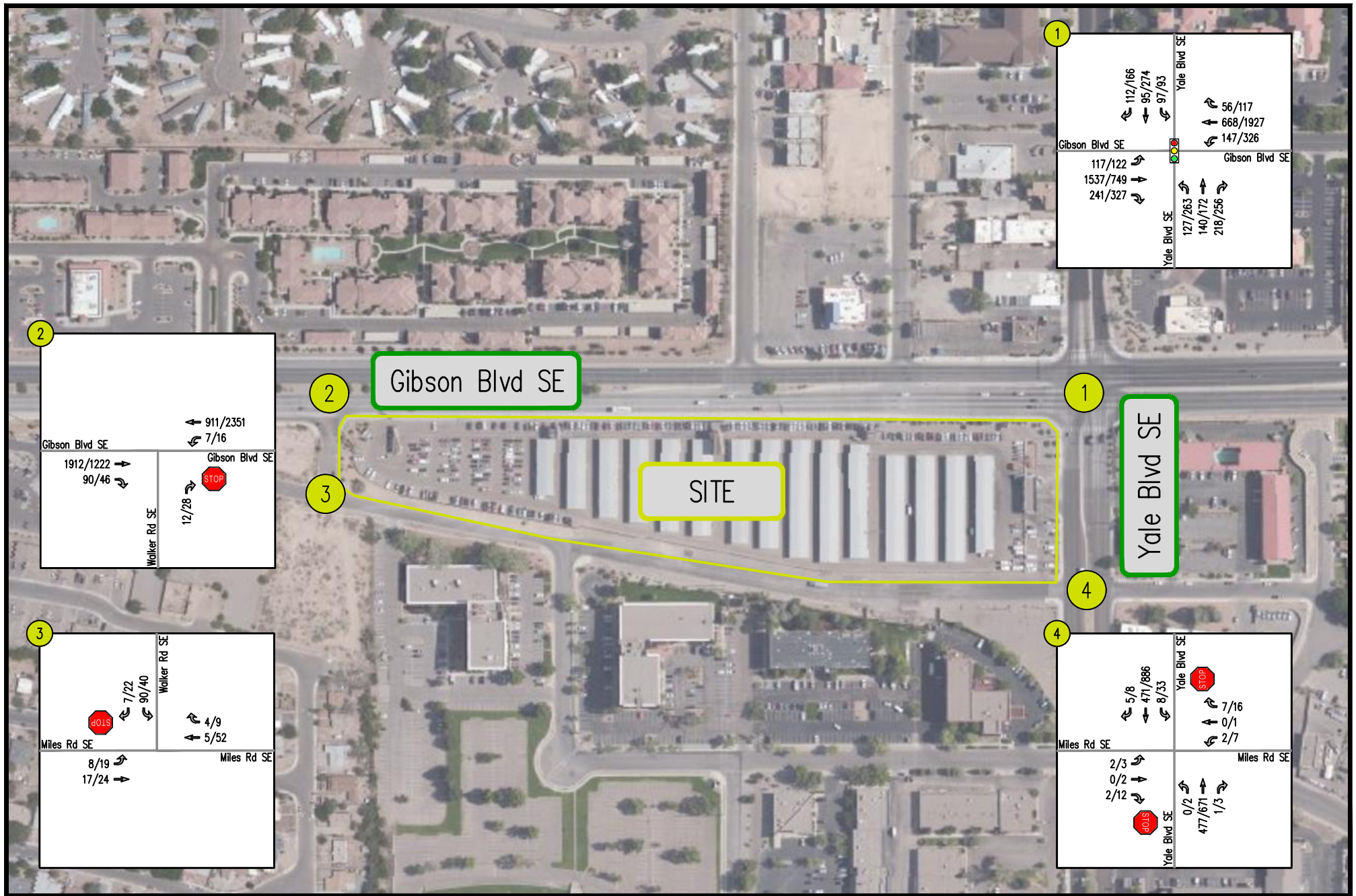


FIGURE 4-3  
Background Future Forecasts 2023

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
SIGNALIZED INTERSECTION  
STOP SIGN  
YIELD SIGN



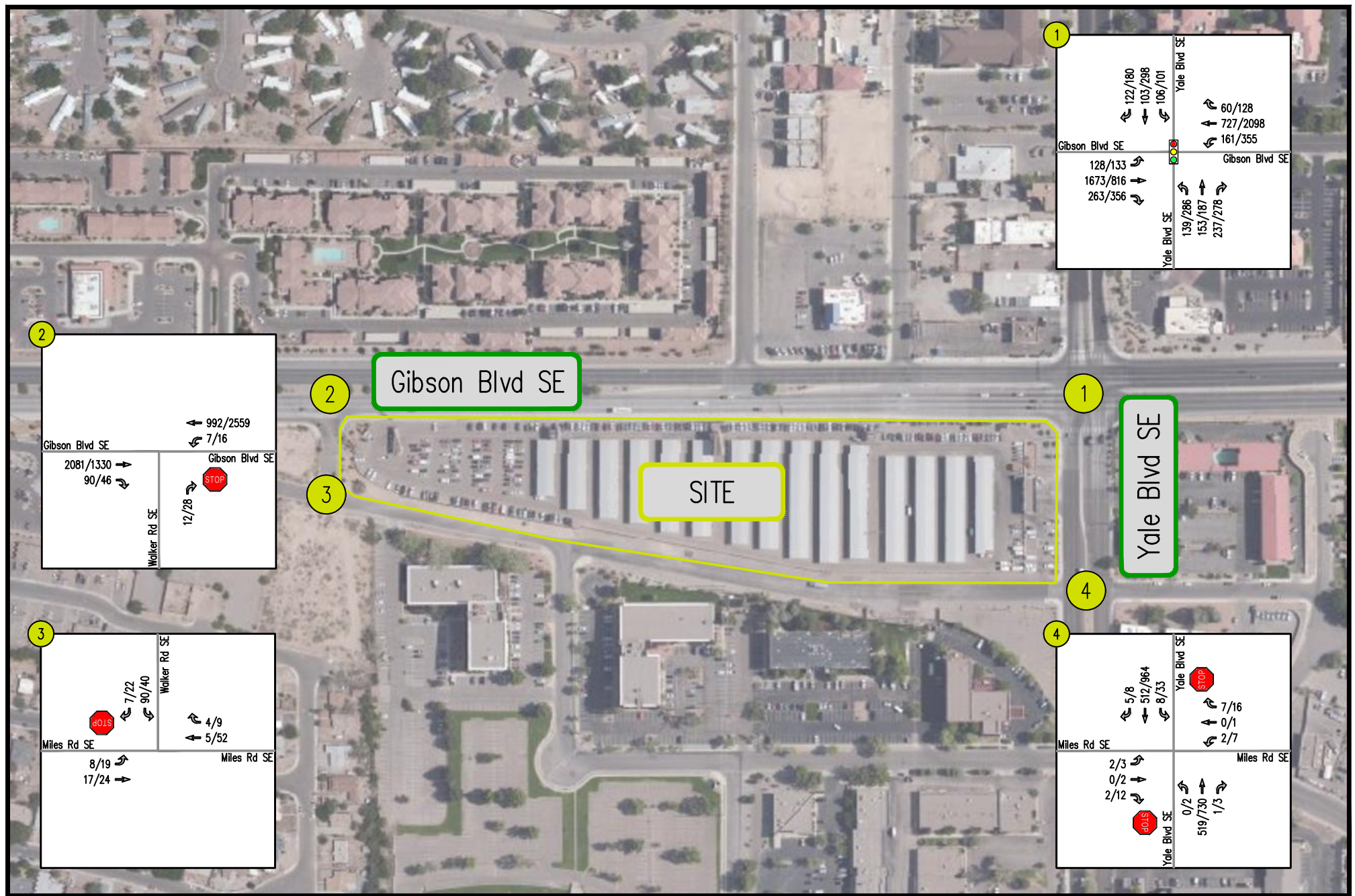


FIGURE 4-4  
Background Future Forecasts 2040

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
SIGNALIZED INTERSECTION  
STOP SIGN  
YIELD SIGN



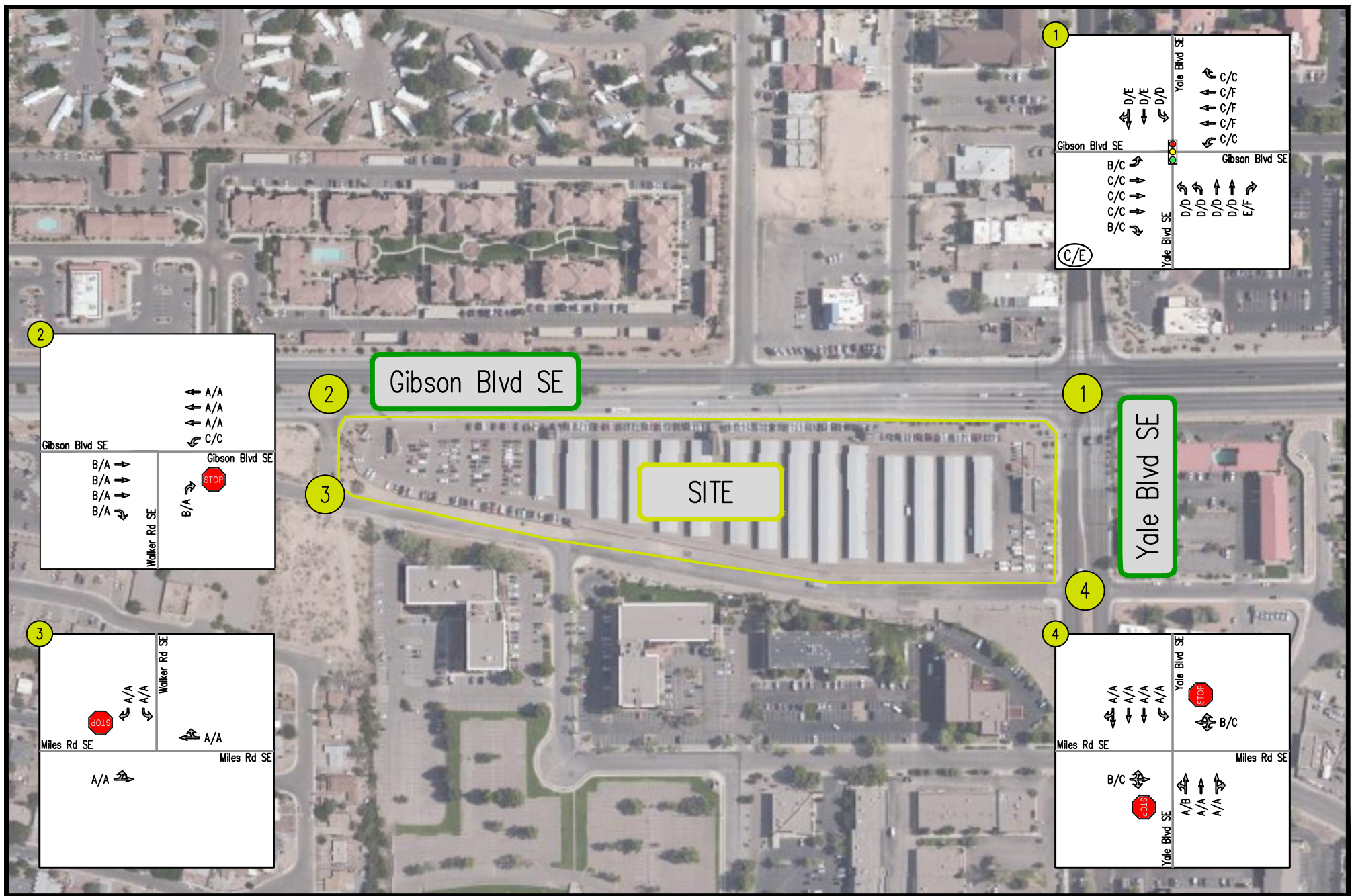


FIGURE 4-5  
Background Future 2023 LOS

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
 SIGNALIZED INTERSECTION  
 STOP SIGN  
 YIELD SIGN



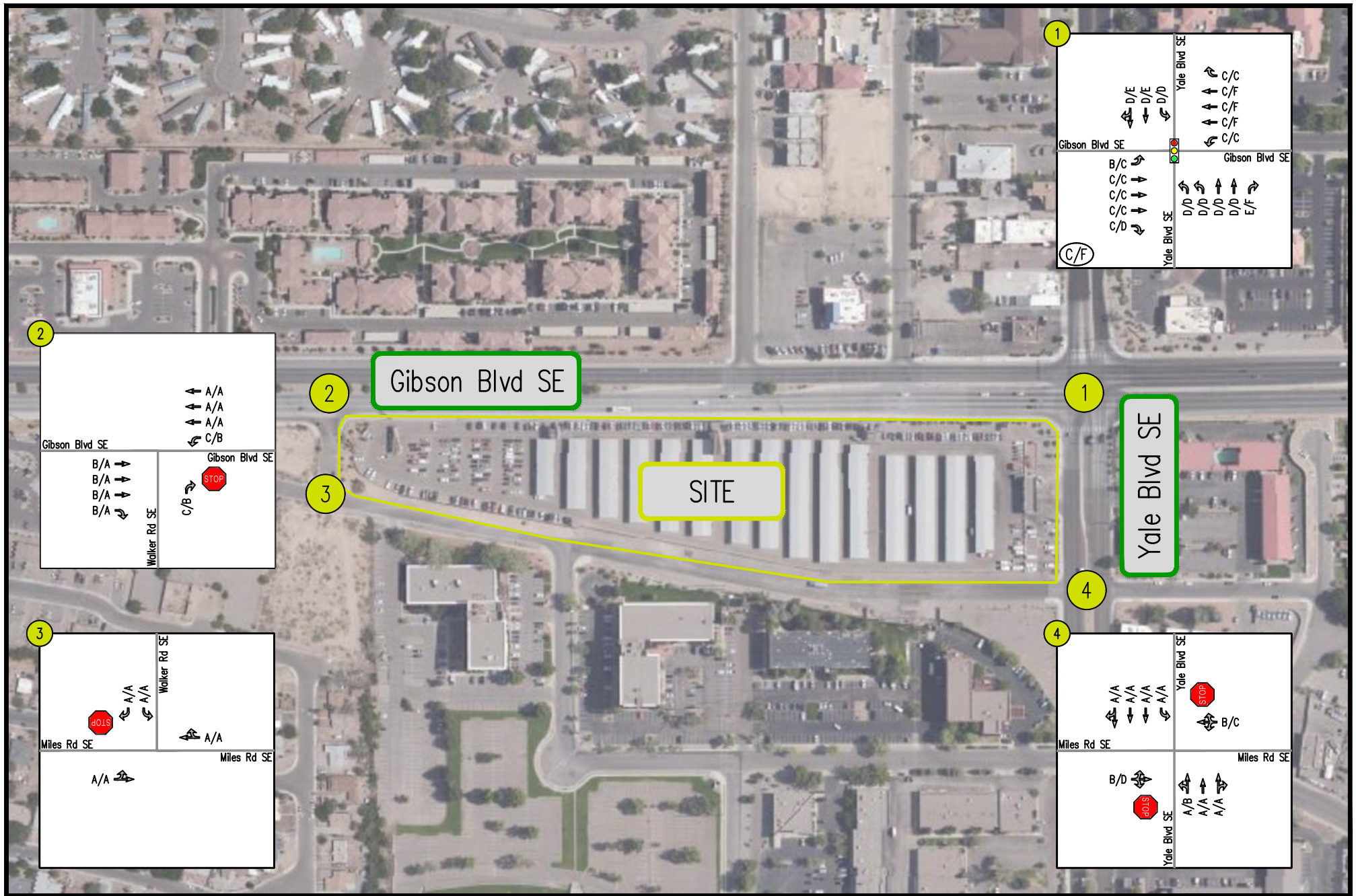


FIGURE 4-6  
Background Future 2040 LOS

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
 SIGNALIZED INTERSECTION  
 STOP SIGN  
 YIELD SIGN



Table 4-1  
Gibson Yale  
Background Future Intersection Level of Service Summary (1) (2)

| Intersection            | Operating Condition | Street Name | Approach/ Movement | Existing 2021   |                 | Background 2023 |                 | Background 2040 |                  |
|-------------------------|---------------------|-------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
|                         |                     |             |                    | AM Peak Hour    | PM Peak Hour    | AM Peak Hour    | PM Peak Hour    | AM Peak Hour    | PM Peak Hour     |
| 1 Gibson Blvd/Yale Blvd | Signal              | Gibson Blvd | EBL                | B (12.5)        | C (22.5)        | B (12.7)        | C (22.5)        | B (14.1)        | C (23.0)         |
|                         |                     |             | EBT                | C (23.4)        | C (25.9)        | C (23.7)        | C (26.2)        | C (27.7)        | C (29.7)         |
|                         |                     |             | EBR                | B (19.0)        | C (30.3)        | B (19.2)        | C (30.8)        | C (21.5)        | D (36.3)         |
|                         |                     |             | WBL                | C (25.2)        | C (24.8)        | C (25.8)        | C (25.3)        | C (30.6)        | C (33.1)         |
|                         |                     | Gibson Blvd | WBT                | C (28.9)        | F (118.2)       | C (29.1)        | F (126.0)       | C (31.2)        | F (197.9)        |
|                         |                     |             | WBR                | C (25.6)        | C (30.6)        | C (25.8)        | C (30.9)        | C (27.2)        | C (32.7)         |
|                         |                     |             | NBL                | D (38.6)        | D (41.9)        | D (38.4)        | D (41.9)        | D (37.2)        | D (40.8)         |
|                         |                     |             | NBT                | D (43.7)        | D (45.3)        | D (43.6)        | D (45.2)        | D (42.6)        | D (44.1)         |
|                         |                     | Yale Blvd   | NBR                | E (72.9)        | F (81.5)        | E (73.2)        | F (82.0)        | E (76.6)        | F (86.4)         |
|                         |                     |             | SBL                | D (38.3)        | D (41.8)        | D (38.1)        | D (41.9)        | D (36.9)        | D (40.5)         |
|                         |                     |             | SBT                | D (43.3)        | E (65.7)        | D (43.2)        | E (65.9)        | D (42.1)        | E (68.8)         |
|                         |                     |             | SBR                | <u>D (44.6)</u> | <u>E (70.1)</u> | <u>D (44.5)</u> | <u>E (70.4)</u> | <u>D (43.4)</u> | <u>E (73.5)</u>  |
|                         |                     | Overall     |                    | <b>C (29.9)</b> | <b>E (72.0)</b> | <b>C (30.1)</b> | <b>E (75.3)</b> | <b>C (32.6)</b> | <b>F (106.1)</b> |
| 2 Gibson Blvd/Walker Rd | STOP                | Gibson Blvd | EBT                | B [10.3]        | A [4.4]         | B [10.8]        | A [4.7]         | B [11.8]        | A [5.3]          |
|                         |                     |             | EBR                | A [8.9]         | A [4.0]         | B [10.9]        | A [7.7]         | B [11.5]        | A [5.1]          |
|                         |                     | Gibson Blvd | WBL                | D [28.3]        | B [12.3]        | C [18.4]        | C [19.4]        | C [16.5]        | B [14.5]         |
|                         |                     |             | WBT                | A [1.7]         | A [2.4]         | A [1.7]         | A [2.4]         | A [1.9]         | A [1.1]          |
|                         |                     | Walker Rd   | NBR                | A [9.5]         | A [7.7]         | B [10.3]        | A [7.0]         | C [15.3]        | B [13.5]         |
| 3 Miles Rd/Walker Rd    | STOP                | Miles Rd    | EBLT               | A [7.2]         | A [7.4]         | A [7.2]         | A [7.4]         | A [7.2]         | A [7.4]          |
|                         |                     | Miles Rd    | WBTR               | A [0.0]         | A [0.0]         | A [0.0]         | A [0.0]         | A [0.0]         | A [0.0]          |
|                         |                     | Walker Rd   | SBL                | A [9.2]         | A [9.5]         | A [9.2]         | A [9.5]         | A [9.2]         | A [9.5]          |
|                         |                     |             | SBR                | A [8.4]         | A [8.7]         | A [8.4]         | A [8.7]         | A [8.4]         | A [8.7]          |
| 4 Miles Rd/Yale Blvd    | STOP                | Miles Rd    | EBLTR              | B [13.8]        | C [23.0]        | B [13.9]        | C [23.4]        | B [14.7]        | D [27.0]         |
|                         |                     | Miles Rd    | WBLTR              | B [11.3]        | C [18.5]        | B [11.3]        | C [18.8]        | B [11.7]        | C [21.1]         |
|                         |                     | Yale Blvd   | NBL                | A [0.0]         | B [13.9]        | A [0.0]         | B [14.0]        | A [0.0]         | B [14.9]         |
|                         |                     |             | NBTR               | A [0.0]         | A [0.1]         | A [0.0]         | A [0.1]         | A [0.0]         | A [0.0]          |
|                         |                     | Yale Blvd   | SBL                | A [0.0]         | A [9.3]         | A [8.5]         | A [9.3]         | A [8.6]         | A [9.6]          |
|                         |                     |             | SBTR               | A [0.0]         | A [0.0]         | A [0.0]         | A [0.0]         | A [0.0]         | A [0.0]          |

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.  
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.  
\*SimTraffic used to evaluate to accurately reflect operations due to platooning from nearby signals

Table 4-2  
Gibson Yale  
Background Future Intersection Queueing Summary (1)

| Intersection            | Operating Condition | Street Name | Approach/ Movement | Available Storage | Existing 2021 |              | Background 2023 |              | Background 2040 |              |
|-------------------------|---------------------|-------------|--------------------|-------------------|---------------|--------------|-----------------|--------------|-----------------|--------------|
|                         |                     |             |                    |                   | AM Peak Hour  | PM Peak Hour | AM Peak Hour    | PM Peak Hour | AM Peak Hour    | PM Peak Hour |
| 1 Gibson Blvd/Yale Blvd | Signal              | Gibson Blvd | EBL                | -                 | 65            | 90           | 66              | 91           | 74              | 103          |
|                         |                     |             | EBT                | -                 | 469           | 283          | 477             | 287          | 566             | 347          |
|                         |                     |             | EBR                | 240               | 107           | 8            | 109             | 84           | 132             | 91           |
|                         |                     | Gibson Blvd | WBL                | 400               | 119           | 238          | 120             | 240          | 133             | 284          |
|                         |                     |             | WBT                | -                 | 241           | 1116         | 244             | 1130         | 267             | 1247         |
|                         |                     |             | WBR                | 200               | 0             | 68           | 0               | 69           | 4               | 81           |
|                         |                     | Yale Blvd   | NBL                | -                 | 63            | 112          | 63              | 113          | 68              | 118          |
|                         |                     |             | NBT                | -                 | 90            | 100          | 91              | 101          | 97              | 105          |
|                         |                     |             | NBR                | -                 | 75            | 72           | 75              | 72           | 78              | 72           |
|                         |                     | Yale Blvd   | SBL                | 200               | 103           | 93           | 104             | 94           | 112             | 97           |
|                         |                     |             | SBT                | -                 | 74            | 216          | 74              | 218          | 78              | 237          |
| 2 Gibson Blvd/Walker Rd | STOP                | Gibson Blvd | EBT                | -                 | 378           | 0            | 0               | 0            | 383             | 0            |
|                         |                     |             | EBR                | 125               | 0             | 7            | 0               | 0            | 0               | 0            |
|                         |                     | Gibson Blvd | WBL                | 175               | 23            | 22           | 22              | 34           | 29              | 21           |
|                         |                     |             | WBT                | -                 | 0             | 0            | 0               | 0            | 0               | 0            |
|                         |                     | Walker Rd   | NBR                | -                 | 25            | 37           | 28              | 33           | 22              | 49           |
| 3 Miles Rd/Walker Rd    | STOP                | Miles Rd    | EBLT               | -                 | 0             | 0            | 0               | 0            | 0               | 0            |
|                         |                     | Miles Rd    | WBTR               | -                 | 0             | 0            | 0               | 0            | 0               | 0            |
|                         |                     | Walker Rd   | SBL                | -                 | 7.5           | 5            | 7.5             | 5            | 7.5             | 5            |
|                         |                     |             | SBR                | -                 | 0             | 2.5          | 0               | 2.5          | 0               | 2.5          |
| 4 Miles Rd/Yale Blvd    | STOP                | Miles Rd    | EBLTR              | -                 | 0             | 7.5          | 0               | 7.5          | 0               | 7.5          |
|                         |                     | Miles Rd    | WBLTR              | -                 | 2.5           | 7.5          | 2.5             | 7.5          | 2.5             | 7.5          |
|                         |                     | Yale Blvd   | NBLT               | -                 | 0             | 0            | 0               | 0            | 0               | 0            |
|                         |                     |             | NBR                | -                 | 0             | 0            | 0               | 0            | 0               | 0            |
|                         |                     | Yale Blvd   | SBL                | 60                | 0             | 2.5          | 0               | 2.5          | 0               | 2.5          |
|                         |                     |             | SBTR               | -                 | 0             | 0            | 0               | 0            | 0               | 0            |

Notes : (1) Queue length is based on the 95th percentile queue as reported by Synchro, Version 10.

\*SimTraffic used to evaluate to accurately reflect operations due to platooning from nearby signals

## V. Site Analysis

### Overview

The Applicant is proposing to develop the 7.18-acre site with a mix of commercial uses. For purposes of this study, the site will be developed in one distinct phase. For analysis purposes it was assumed that phase one would be complete in 2023. The following mix of uses and development programs were analyzed:

#### 2023

|       |    |                                      |
|-------|----|--------------------------------------|
| 20    | FP | Gas Station with Convenience Store   |
| 950   | SF | Coffee with Drive-Thru               |
| 3,751 | SF | Fast Food Restaurant with Drive-Thru |
| 5,500 | SF | Fast Casual Restaurant               |
| 4,250 | SF | Fast Food Restaurant with Drive-Thru |
| 4,250 | SF | Fast Food Restaurant with Drive-Thru |

### Proposed Site Access

As shown on the Applicant's conceptual plan (Figure 1-2), access to the development is being proposed via two right-in/right-out movements along Gibson Boulevard and three full movement accesses along Miles Road. Proposed lane use and traffic controls are shown on Figure 5-1.

### Trip Generation

#### **Overview**

Trip generation estimates for the weekday AM and PM peak hours, as well as the weekday average daily traffic (ADT), were derived from the standard Institute of Transportation Engineers (ITE) Trip Generation Manual rates/equations, as published in the 10<sup>th</sup> edition. The trip generation analysis is presented in Table 5-1.

#### **Pass-by Trips**

According to ITE, in some cases the driveway volumes at a particular land use are different from the amount of traffic added to the adjacent street system. Uses such as retail establishments attract a portion of their trips from traffic that is already present on the road network. Pass-by trip are those trips which are made as intermediate stops on the way to a primary destination. An example of a pass-by trip would be one in which a driver stops at a retail store on his/her way home from work.

The proposed use would experience pass-by trips consistent with the primary uses located on site. In recognition of this phenomenon and consistent with ITE published data, the following pass-by reductions were applied to the trip generation analysis:

- Gas Station with Convenience Store 62% AM/ 56% PM
- Fast-food restaurant with drive-thru 49% AM/ 50% PM

As shown in Table 5-1, the site in total is anticipated to generate 397 weekday AM, and 359 weekday PM peak hour pass-by trips. Therefore, these trips would be drawn from the existing road network and assigned

to the future site entrances accordingly. Pass-by trip assignments at key study intersections are shown on Figure 5-2.

### **Net Site Trips**

The vehicle trips that would be generated by the proposed development plan are summarized in Table 5-1. As shown in Table 5-1, the site would generate upon completion and full occupancy, 676 net new weekday AM and 479 net new weekday PM peak hour vehicle trips as well as 8,325 net new weekday daily trips.

### **Site Trip Distributions**

The distribution of the anticipated trips generated by the completion of the proposed development was based on an examination of existing traffic counts and local knowledge. Existing travel patterns indicate the following distribution is appropriate in the forecasting of future site traffic:

- To/from the west on Gibson Boulevard: 35%
- To/from the north on Yale Boulevard: 20%
- To/from the east on Gibson Boulevard: 30%
- To/from the south on Yale Boulevard: 15%

### **Site Trip Assignments**

The assignment of the new vehicle trips generated upon the future build-out of the development project was based on the above distribution. The trips assignments are depicted on Figure 5-3.

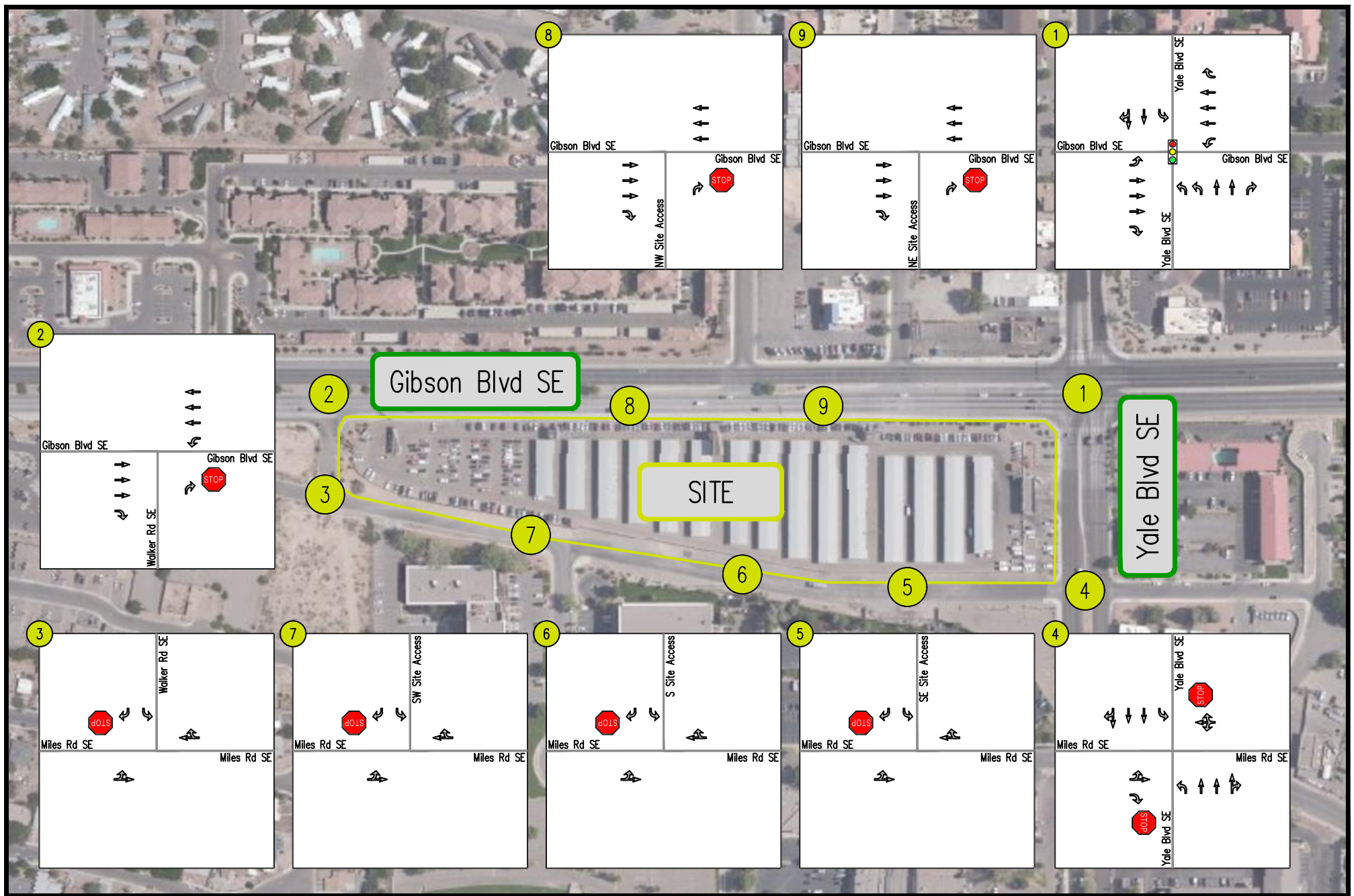


FIGURE 5-1  
Total Future Lane Use and Traffic Control



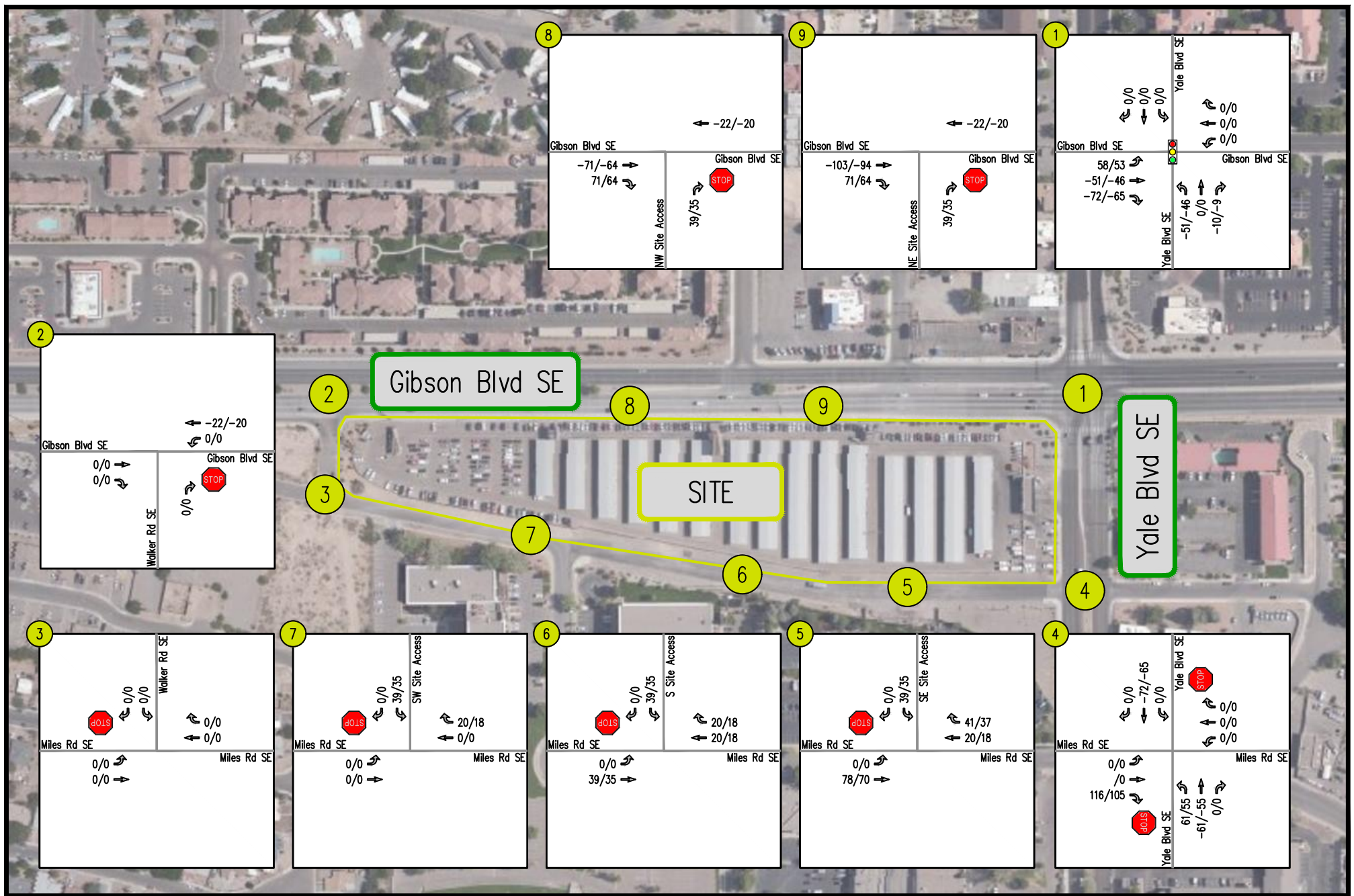


FIGURE 5-2  
Pass-by Trips

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
 SIGNALIZED INTERSECTION  
 STOP SIGN  
 YIELD SIGN



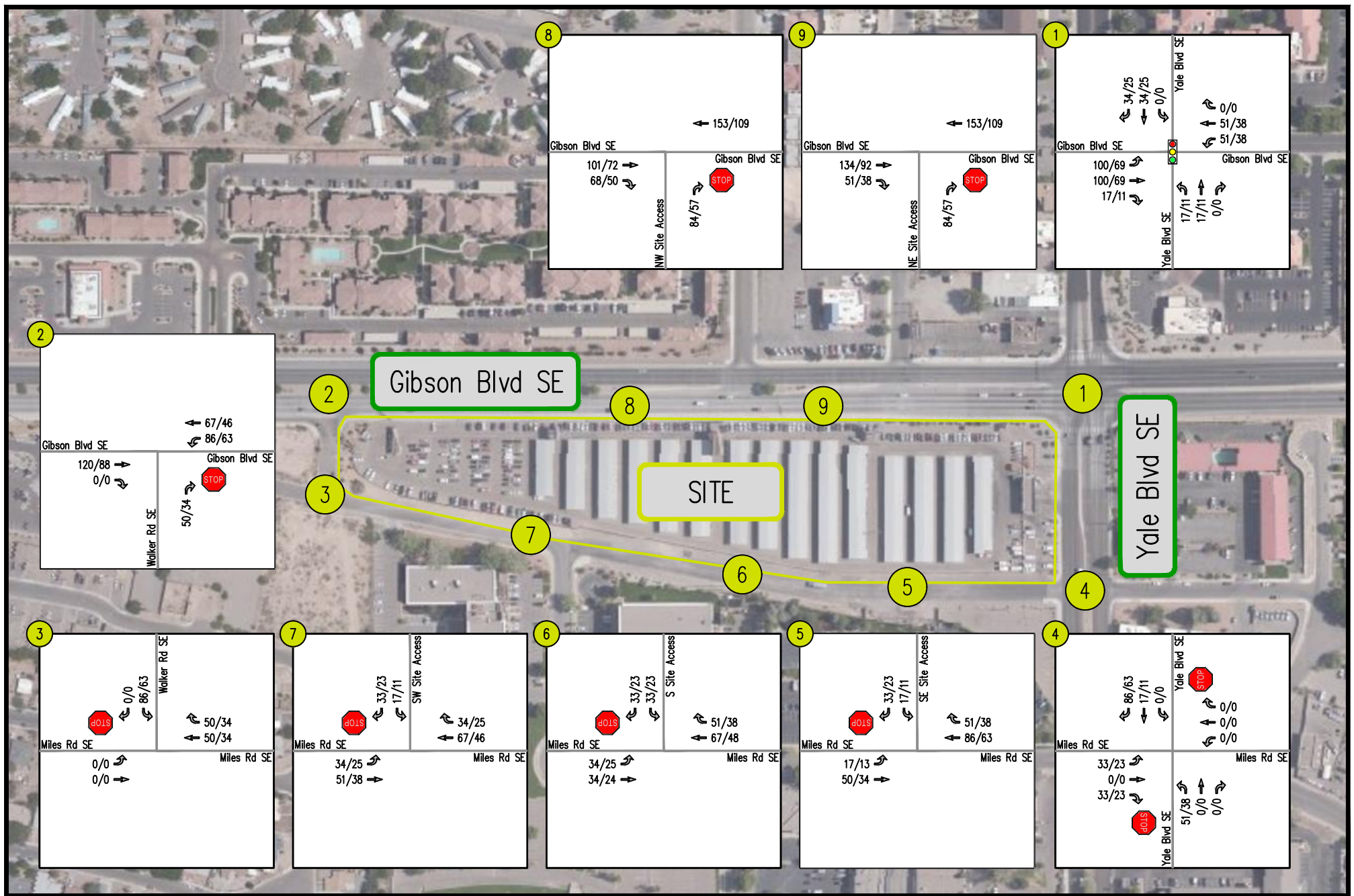


FIGURE 5-3  
Site Trips

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
 SIGNALIZED INTERSECTION  
 STOP SIGN  
 YIELD SIGN



Table 5-1

Gibson Yale

Site Trip Generation

| Land Use                               | Land Use Code | Amount | Units | AM Peak Hour |              |              | PM Peak Hour |              |              | Average Daily Trips |
|----------------------------------------|---------------|--------|-------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------|
|                                        |               |        |       | In           | Out          | Total        | In           | Out          | Total        |                     |
| <b><i>Proposed</i></b>                 |               |        |       |              |              |              |              |              |              |                     |
| Gas Station with Convenience Store     | 945           | 20     | FP    | 127          | 122          | 249          | 143          | 137          | 280          | 4,107               |
| <i>Phase 1 Pass-by (AM 62%/PM 56%)</i> |               |        |       | <u>(79)</u>  | <u>(76)</u>  | <u>(155)</u> | <u>(80)</u>  | <u>(77)</u>  | <u>(157)</u> | <u>(2,300)</u>      |
| <i>Total</i>                           |               |        |       | 48           | 46           | 94           | 63           | 60           | 123          | 1,807               |
| Coffee with Drive-Thru                 | 938           | 950    | SF    | 160          | 160          | 320          | 40           | 39           | 79           | 1,900               |
| Fast Food Restaurant with Drive-Thru   | 934           | 3,751  | SF    | 77           | 74           | 151          | 64           | 59           | 123          | 1,767               |
| <i>Pass-by (AM 49%/PM 50%)</i>         |               |        |       | <u>(38)</u>  | <u>(36)</u>  | <u>(74)</u>  | <u>(32)</u>  | <u>(30)</u>  | <u>(62)</u>  | <u>(884)</u>        |
| <i>Total</i>                           |               |        |       | 39           | 38           | 77           | 32           | 29           | 61           | 883                 |
| Fast Casual Restaurant                 | 930           | 5,500  | SF    | 7            | 4            | 11           | 43           | 35           | 78           | 1,733               |
| Fast Food Restaurant with Drive-Thru   | 934           | 4,250  | SF    | 87           | 84           | 171          | 72           | 67           | 139          | 2,002               |
| <i>Pass-by (AM 49%/PM 50%)</i>         |               |        |       | <u>(43)</u>  | <u>(41)</u>  | <u>(84)</u>  | <u>(36)</u>  | <u>(34)</u>  | <u>(70)</u>  | <u>(1,001)</u>      |
| <i>Total</i>                           |               |        |       | 44           | 43           | 87           | 36           | 33           | 69           | 1,001               |
| Fast Food Restaurant with Drive-Thru   | 934           | 4,250  | SF    | 87           | 84           | 171          | 72           | 67           | 139          | 2,002               |
| <i>Pass-by (AM 49%/PM 50%)</i>         |               |        |       | <u>(43)</u>  | <u>(41)</u>  | <u>(84)</u>  | <u>(36)</u>  | <u>(34)</u>  | <u>(70)</u>  | <u>(1,001)</u>      |
| <i>Total</i>                           |               |        |       | 44           | 43           | 87           | 36           | 33           | 69           | 1,001               |
| Total Trips                            |               |        |       | 545          | 528          | 1,073        | 434          | 404          | 838          | 13,511              |
| <i>Total Pass-by Trips</i>             |               |        |       | <u>(203)</u> | <u>(194)</u> | <u>(397)</u> | <u>(184)</u> | <u>(175)</u> | <u>(359)</u> | <u>(5,186)</u>      |
| Net New Trips                          |               |        |       | 342          | 334          | 676          | 250          | 229          | 479          | 8,325               |
|                                        |               |        |       |              |              |              |              |              |              |                     |

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 10th Edition

## **VI. Analysis of Future Conditions with Site Development**

### **Total Future Traffic Forecasts**

The 2023 and 2040 total future traffic forecasts associated with the proposed development were developed by combining the baseline traffic volumes shown on Figure 3-1, background future forecasts shown on Figure 4-3 (2023) and Figure 4-4 (2040) and the total site trip assignments shown on Figure 5-3. The resulting total future traffic forecasts are provided on Figure 6-1 for 2023 and Figure 6-2 for 2040.

### **Total Future Levels of Service with Proposed Development**

Future levels of service with the proposed development plan were estimated at key study intersections based on the future traffic volumes shown on Figure 6-1 and Figure 6-2, the future lane use on Figure 5-1, and the HCM 6<sup>th</sup> and HCM 2000 methodologies for signalized and unsignalized intersections. The results of these analyses are provided in Appendix G and presented in Table 6-1. Total future levels of service are also presented graphically on Figure 6-3 (2023), and Figure 6-4 (2040).

As shown in Table 6-1, levels of service under future site development conditions would remain generally consistent with future background conditions (i.e., without site development). Overall delays would experience minor increase due to site trips. The signalized intersections within the study area would continue to operate consistent with background conditions.

The unsignalized intersection of Miles Road/Yale Boulevard would operate at or exceeding capacity in the PM peak hour of the 2023 and 2040 scenarios. In order for the intersection to operate at acceptable levels of service and not trigger the need for signalization the following improvements were analyzed:

- Dedicated eastbound right turn lane (100' of storage)
- Dedicated northbound left turn lane (200' of storage)

The proposed site entrances are forecasted to operate at LOS "E" or better during the AM and PM peak hours.

These results indicate that the development of the site would not require additional road improvements beyond what is recommended above.

### **Total Future Queuing**

Total future queues were forecasted using Synchro software. The results of the queuing analysis are summarized in Table 6-2.

As shown in Table 6-2, and with the improvements recommended above, the total future queues are forecasted to be contained with the available storage for all movements. These results indicate that the development of the site would not require additional road improvements beyond what is recommended above.

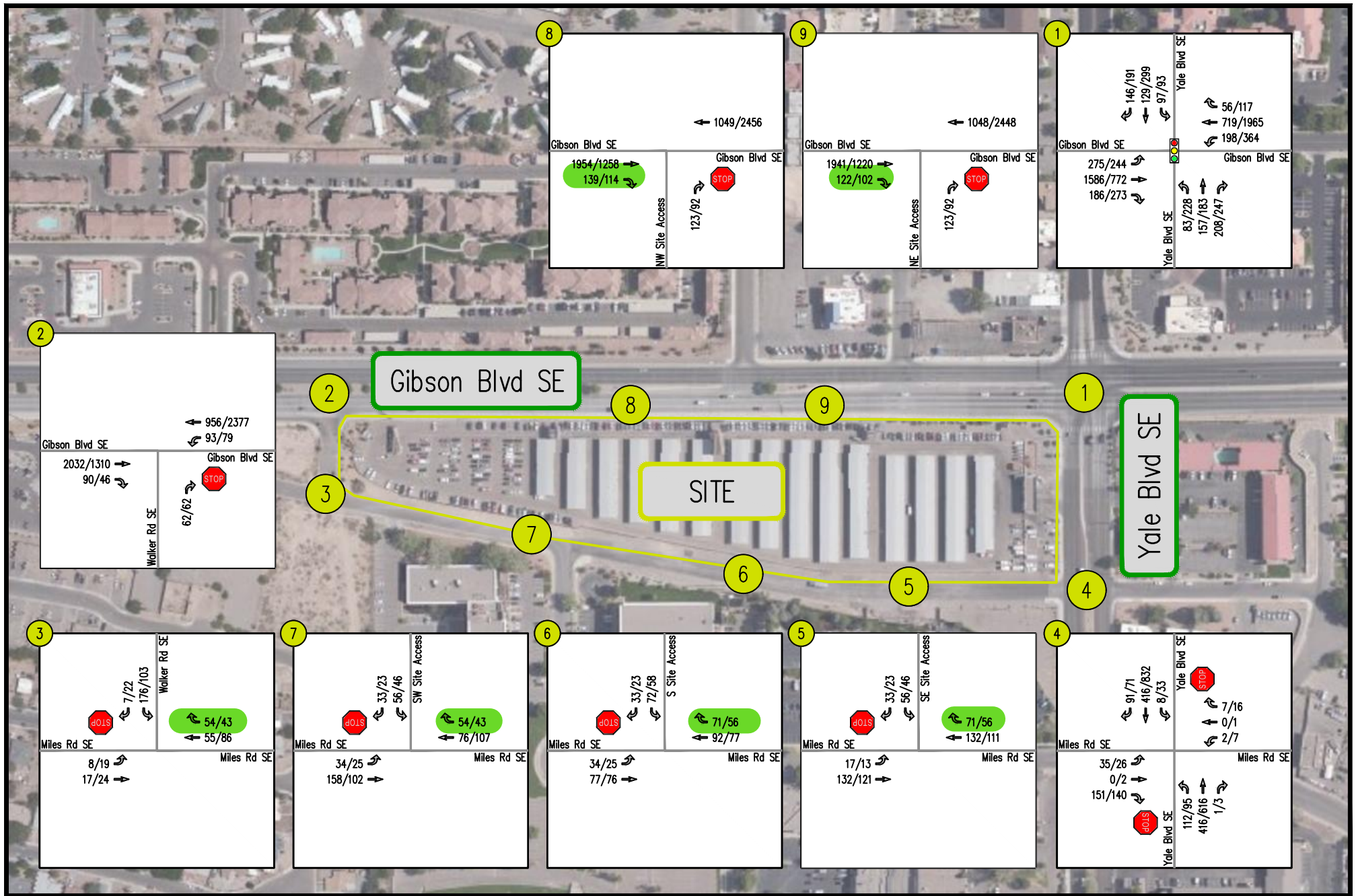


FIGURE 6-1  
Total Future Forecasts 2023

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
SIGNALIZED INTERSECTION  
STOP SIGN  
YIELD SIGN



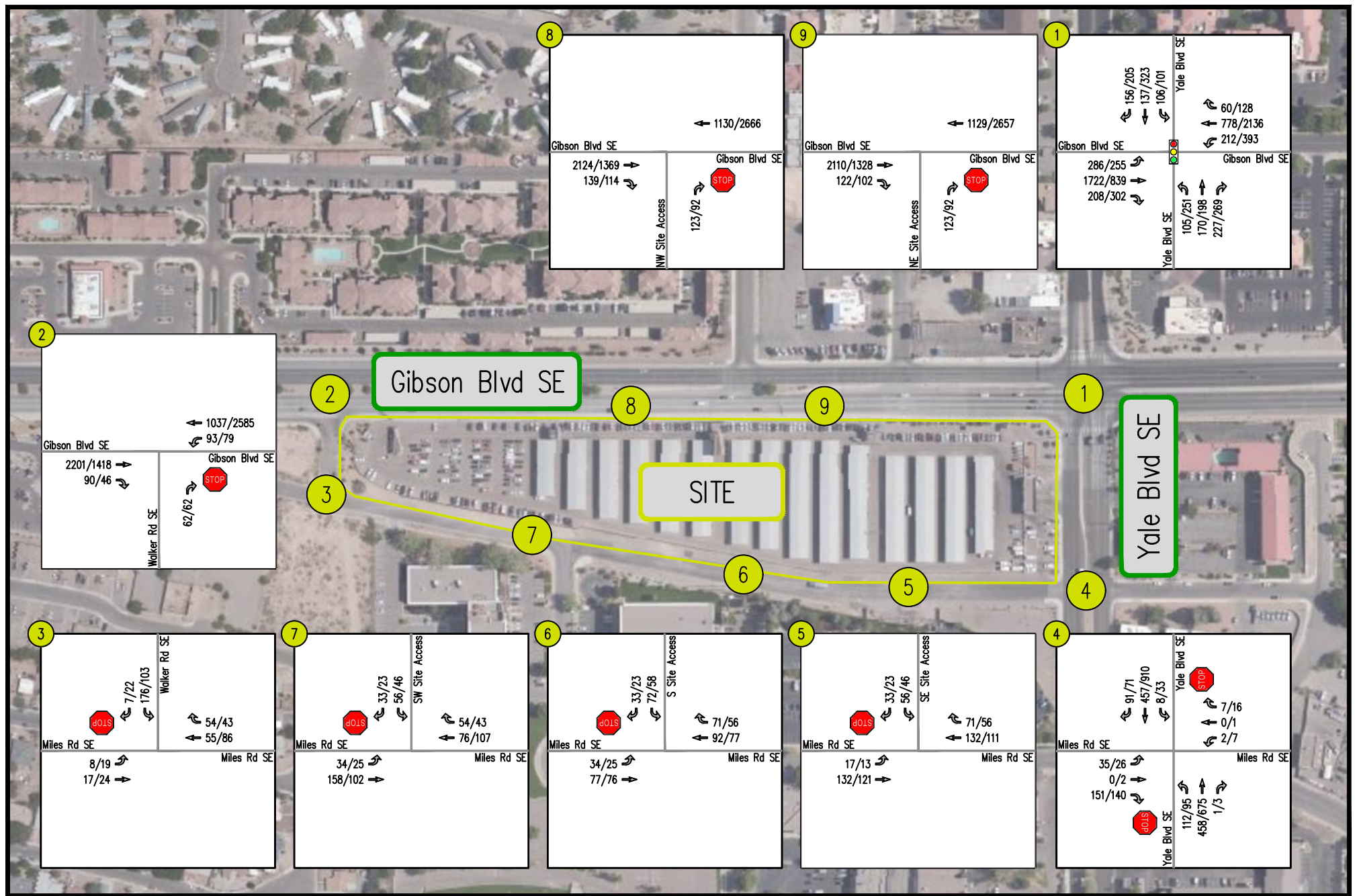


FIGURE 6-2  
Total Future Forecasts 2040

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
SIGNALIZED INTERSECTION  
STOP SIGN  
YIELD SIGN



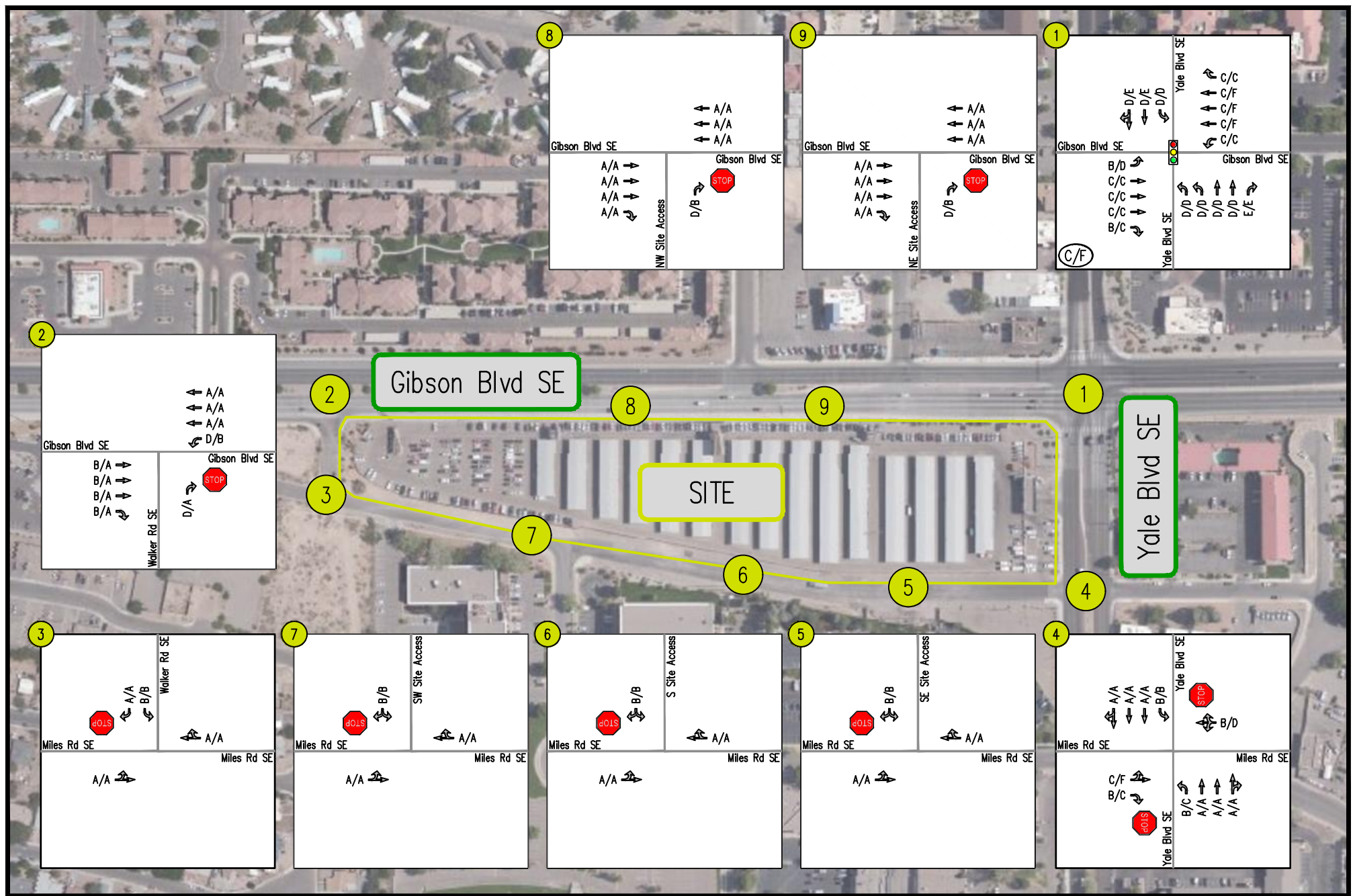


FIGURE 6-3  
Total Future 2023 LOS

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
 SIGNALIZED INTERSECTION  
 STOP SIGN  
 YIELD SIGN



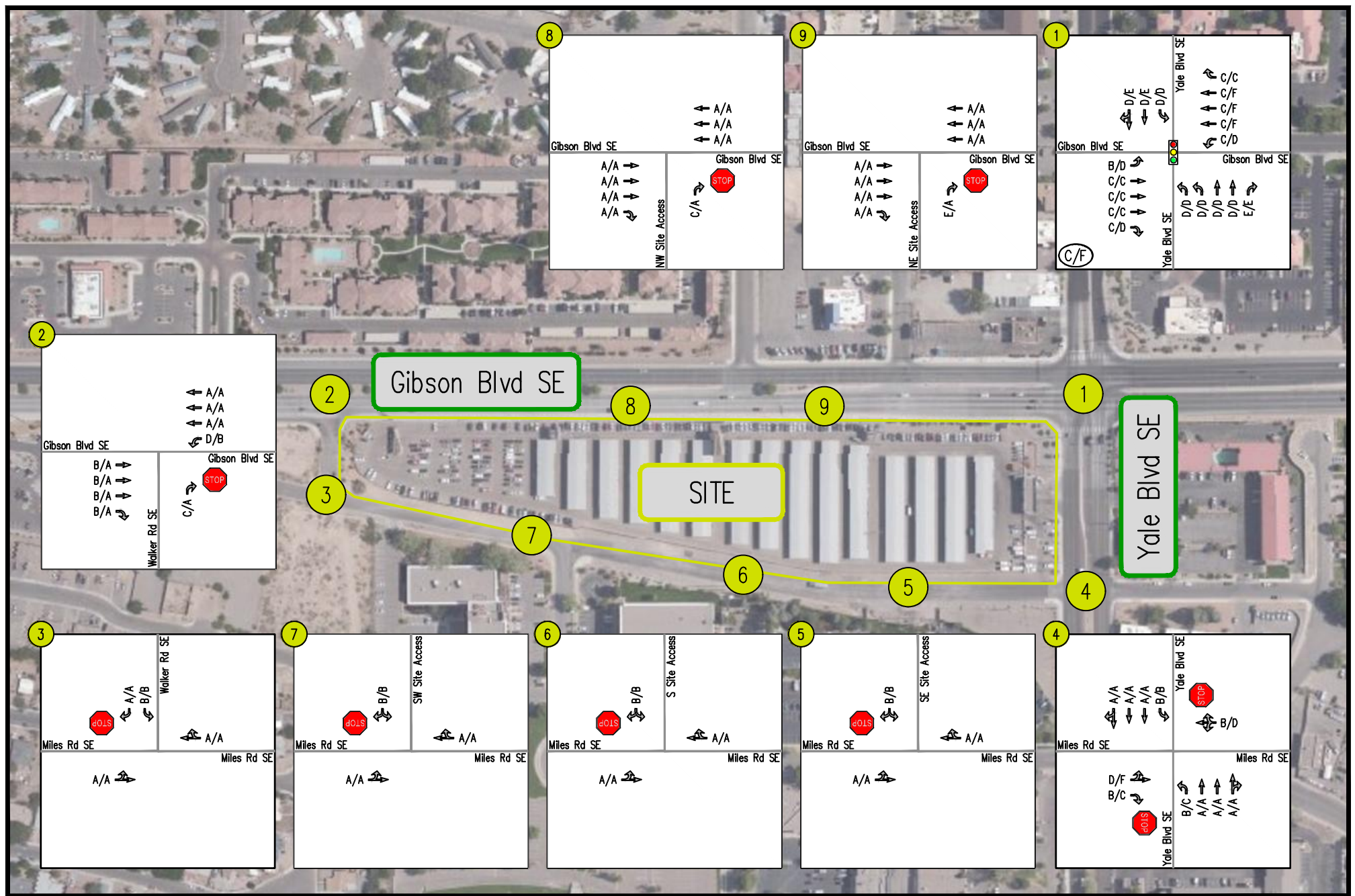


FIGURE 6-4  
Total Future 2040 LOS

Gibson Yale  
Albuquerque, NM

(A/A) INTERSECTION LOS  
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT  
 SIGNALIZED INTERSECTION  
 STOP SIGN  
 YIELD SIGN



Table 6-1  
Gibson Yale  
Total Future Intersection Level of Service Summary (1) (2)

| Intersection                 | Operating Condition                                  | Street Name               | Approach/ Movement | Background 2023 |              | Background 2040 |              | Total Future 2023 |              | Total Future 2040 |              |          |         |
|------------------------------|------------------------------------------------------|---------------------------|--------------------|-----------------|--------------|-----------------|--------------|-------------------|--------------|-------------------|--------------|----------|---------|
|                              |                                                      |                           |                    | AM Peak Hour    | PM Peak Hour | AM Peak Hour    | PM Peak Hour | AM Peak Hour      | PM Peak Hour | AM Peak Hour      | PM Peak Hour |          |         |
| 1 Gibson Blvd/Yale Blvd      | Signal                                               | Gibson Blvd               | EBL                | B (12.7)        | C (22.5)     | B (14.1)        | C (23.0)     | B (16.5)          | D (37.7)     | B (19.0)          | D (38.8)     |          |         |
|                              |                                                      |                           | EBT                | C (23.7)        | C (26.2)     | C (27.7)        | C (29.7)     | C (25.6)          | C (28.2)     | C (30.2)          | C (31.8)     |          |         |
|                              |                                                      | Gibson Blvd               | EBR                | B (19.2)        | C (30.8)     | C (21.5)        | D (36.3)     | B (19.0)          | C (30.8)     | C (21.3)          | D (35.7)     |          |         |
|                              |                                                      |                           | WBL                | C (25.8)        | C (25.3)     | C (30.6)        | C (33.1)     | C (29.0)          | C (28.9)     | C (34.1)          | D (40.0)     |          |         |
|                              |                                                      | Yale Blvd                 | WBT                | C (29.1)        | F (126.0)    | C (31.2)        | F (197.9)    | C (29.0)          | F (141.1)    | C (31.1)          | F (214.2)    |          |         |
|                              |                                                      |                           | WBR                | C (25.8)        | C (30.9)     | C (27.2)        | C (32.7)     | C (25.3)          | C (31.1)     | C (26.7)          | C (33.0)     |          |         |
|                              |                                                      | Yale Blvd                 | NBL                | D (38.4)        | D (41.9)     | D (37.2)        | D (40.8)     | D (39.6)          | D (41.8)     | D (38.4)          | D (41.0)     |          |         |
|                              |                                                      |                           | NBT                | D (43.6)        | D (45.2)     | D (42.6)        | D (44.1)     | D (44.6)          | D (44.9)     | D (43.5)          | D (43.9)     |          |         |
|                              |                                                      | Yale Blvd                 | NBR                | E (73.2)        | F (82.0)     | E (76.6)        | F (86.4)     | E (71.1)          | E (72.2)     | E (74.4)          | E (75.7)     |          |         |
|                              |                                                      |                           | SBL                | D (38.1)        | D (41.9)     | D (36.9)        | D (40.5)     | D (38.5)          | D (40.4)     | D (37.2)          | D (39.3)     |          |         |
|                              |                                                      | Overall                   | SBT                | D (43.2)        | E (65.9)     | D (42.1)        | E (68.8)     | D (44.1)          | E (69.7)     | D (42.9)          | E (73.1)     |          |         |
|                              |                                                      |                           | SBR                | D (44.5)        | E (70.4)     | D (43.4)        | E (73.5)     | D (46.0)          | E (74.6)     | D (45.1)          | E (78.1)     |          |         |
|                              |                                                      |                           |                    | C (30.1)        | E (75.3)     | C (32.6)        | F (106.1)    | C (30.8)          | F (81.5)     | C (33.6)          | F (112.6)    |          |         |
| 2 Gibson Blvd/Walker Rd      | STOP                                                 | Gibson Blvd               | EBT                | B [10.8]        | A [4.7]      | B [11.8]        | A [5.3]      | B [13.2]          | A [6.9]      | B [12.9]          | A [6.1]      |          |         |
|                              |                                                      |                           | EBR                | B [10.9]        | A [7.7]      | B [11.5]        | A [5.1]      | B [12.8]          | A [6.1]      | B [13.0]          | A [6.6]      |          |         |
|                              |                                                      | Gibson Blvd               | WBL                | C [18.4]        | C [19.4]     | C [16.5]        | B [14.5]     | D [27.2]          | B [14.4]     | D [28.2]          | B [13.3]     |          |         |
|                              |                                                      |                           | WBT                | A [1.7]         | A [2.4]      | A [1.9]         | A [1.1]      | A [0.8]           | A [2.0]      | A [1.8]           | A [2.0]      |          |         |
|                              |                                                      | Walker Rd                 | NBR                | B [10.3]        | A [7.0]      | C [15.3]        | B [13.5]     | D [29.0]          | A [9.8]      | C [21.5]          | A [9.4]      |          |         |
| 3 Miles Rd/Walker Rd         | STOP                                                 | Miles Rd                  | EBLT               | A [7.2]         | A [7.4]      | A [7.2]         | A [7.4]      | A [7.5]           | A [7.5]      | A [7.5]           | A [7.5]      |          |         |
|                              |                                                      | Miles Rd                  | WBTR               | A [0.0]         | A [0.0]      | A [0.0]         | A [0.0]      | A [0.0]           | A [0.0]      | A [0.0]           | A [0.0]      |          |         |
|                              |                                                      | Walker Rd                 | SBL                | A [9.2]         | A [9.5]      | A [9.2]         | A [9.5]      | B [10.3]          | B [10.3]     | B [10.3]          | B [10.3]     |          |         |
|                              |                                                      |                           | SBR                | A [8.4]         | A [8.7]      | A [8.4]         | A [8.7]      | A [8.7]           | A [9.0]      | A [8.7]           | A [9.0]      |          |         |
| 4 Miles Rd/Yale Blvd         | STOP                                                 | Miles Rd                  | EBLTR              | B [13.9]        | C [23.4]     | B [14.7]        | D [27.0]     | C [19.0]          | F [53.0]     | C [20.6]          | F [87.8]     |          |         |
|                              |                                                      | Miles Rd                  | WBLTR              | B [11.3]        | C [18.8]     | B [11.7]        | C [21.1]     | B [14.1]          | D [33.5]     | B [14.9]          | E [44.0]     |          |         |
|                              |                                                      | Yale Blvd                 | NBL                | A [0.0]         | B [14.0]     | A [0.0]         | B [14.9]     | B [11.9]          | C [17.1]     | B [12.4]          | C [18.8]     |          |         |
|                              |                                                      | Yale Blvd                 | NBTR               | A [0.0]         | A [0.1]      | A [0.0]         | A [0.0]      | A [0.6]           | A [1.6]      | A [0.7]           | A [2.1]      |          |         |
|                              |                                                      | Yale Blvd                 | SBL                | A [8.5]         | A [9.3]      | A [8.6]         | A [9.6]      | B [10.1]          | B [11.9]     | B [10.4]          | B [12.4]     |          |         |
|                              |                                                      | Yale Blvd                 | SBTR               | A [0.0]         | A [0.0]      | A [0.0]         | A [0.0]      | A [0.0]           | A [0.0]      | A [0.0]           | A [0.0]      |          |         |
|                              | Intersection Improvements:<br>EBR and NBL Lane added | STOP                      | Miles Rd           | EBLT            | N/A          | N/A             | N/A          | N/A               | C [23.7]     | F [65.2]          | D [26.0]     | F [85.8] |         |
|                              |                                                      |                           |                    | EBR             | N/A          | N/A             | N/A          | N/A               | B [13.0]     | C [17.1]          | B [13.3]     | C [18.3] |         |
|                              |                                                      | Miles Rd                  | WBLTR              | N/A             | N/A          | N/A             | N/A          | B [13.8]          | D [29.1]     | B [14.5]          | D [34.9]     |          |         |
|                              |                                                      |                           |                    | NBL             | N/A          | N/A             | N/A          | N/A               | B [11.9]     | C [17.1]          | B [12.4]     | C [18.8] |         |
|                              |                                                      | Yale Blvd                 | NBTR               | N/A             | N/A          | N/A             | N/A          | A [0.0]           | A [0.0]      | A [0.0]           | A [0.0]      |          |         |
|                              |                                                      | Yale Blvd                 | SBL                | N/A             | N/A          | N/A             | N/A          | B [10.1]          | B [11.9]     | B [10.4]          | B [12.4]     |          |         |
|                              |                                                      |                           | SBTR               | N/A             | N/A          | N/A             | N/A          | A [0.0]           | A [0.0]      | A [0.0]           | A [0.0]      |          |         |
|                              |                                                      | 5 Miles Rd/SE Site Access | STOP               | Miles Rd        | EBLT         | N/A             | N/A          | N/A               | N/A          | A [7.7]           | A [7.6]      | A [7.7]  | A [7.6] |
|                              |                                                      |                           |                    | Miles Rd        | WBTR         | N/A             | N/A          | N/A               | N/A          | A [0.0]           | A [0.0]      | A [0.0]  | A [0.0] |
| SE Site Access               | SBLR                                                 |                           |                    | N/A             | N/A          | N/A             | N/A          | B [11.0]          | B [10.5]     | B [11.0]          | B [10.5]     |          |         |
| 6 Miles Rd/S Site Access     | STOP                                                 | Miles Rd                  | EBLT               | N/A             | N/A          | N/A             | N/A          | A [7.6]           | A [7.6]      | A [7.6]           | A [7.6]      |          |         |
|                              |                                                      | Miles Rd                  | WBTR               | N/A             | N/A          | N/A             | N/A          | A [0.0]           | A [0.0]      | A [0.0]           | A [0.0]      |          |         |
|                              |                                                      | S Site Access             | SBLR               | N/A             | N/A          | N/A             | N/A          | B [10.8]          | B [10.3]     | B [10.8]          | B [10.3]     |          |         |
| 7 Miles Rd/SW Site Access    | STOP                                                 | Miles Rd                  | EBLT               | N/A             | N/A          | N/A             | N/A          | A [7.6]           | A [7.6]      | A [7.6]           | A [7.6]      |          |         |
|                              |                                                      | Miles Rd                  | WBTR               | N/A             | N/A          | N/A             | N/A          | A [0.0]           | A [0.0]      | A [0.0]           | A [0.0]      |          |         |
|                              |                                                      | SW Site Access            | SBLR               | N/A             | N/A          | N/A             | N/A          | B [10.9]          | B [10.4]     | B [10.9]          | B [10.4]     |          |         |
| 8 Gibson Blvd/NW Site Access | STOP                                                 | Gibson Blvd               | EBTR               | N/A             | N/A          | N/A             | N/A          | A [1.9]           | A [1.4]      | A [1.9]           | A [2.1]      |          |         |
|                              |                                                      | Gibson Blvd               | WBT                | N/A             | N/A          | N/A             | N/A          | A [0.3]           | A [0.4]      | A [0.3]           | A [0.5]      |          |         |
|                              |                                                      | NW Site Access            | NBR                | N/A             | N/A          | N/A             | N/A          | D [25.2]          | B [12.2]     | C [25.0]          | A [8.3]      |          |         |
| 9 Gibson Blvd/NE Site Access | STOP                                                 | Gibson Blvd               | EBTR               | N/A             | N/A          | N/A             | N/A          | A [0.9]           | A [0.2]      | A [1.2]           | A [0.9]      |          |         |
|                              |                                                      | Gibson Blvd               | WBT                | N/A             | N/A          | N/A             | N/A          | A [0.2]           | A [0.3]      | A [0.2]           | A [0.6]      |          |         |
|                              |                                                      | NE Site Access            | NBR                | N/A             | N/A          | N/A             | N/A          | D [31.6]          | B [12.6]     | E [35.2]          | A [9.7]      |          |         |

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.  
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.  
\*SimTraffic used to evaluate to accurately reflect operations due to platooning from nearby signals

Table 6-2  
Gibson Yale  
Total Future Intersection Queueing Summary (1)

| Intersection                                                                             | Operating Condition | Street Name    | Approach/Movement | Available Storage | Background 2023 |              | Background 2040 |              | Total Future 2023 |              | Total Future 2040 |              |
|------------------------------------------------------------------------------------------|---------------------|----------------|-------------------|-------------------|-----------------|--------------|-----------------|--------------|-------------------|--------------|-------------------|--------------|
|                                                                                          |                     |                |                   |                   | AM Peak Hour    | PM Peak Hour | AM Peak Hour    | PM Peak Hour | AM Peak Hour      | PM Peak Hour | AM Peak Hour      | PM Peak Hour |
| 1 Gibson Blvd/Yale Blvd                                                                  | Signal              | Gibson Blvd    | EBL               | -                 | 66              | 91           | 74              | 103          | 187               | 216          | 200               | 240          |
|                                                                                          |                     |                | EBT               | -                 | 477             | 287          | 566             | 347          | 540               | 307          | 672               | 363          |
|                                                                                          |                     |                | EBR               | 240               | 109             | 84           | 132             | 91           | 96                | 79           | 116               | 85           |
|                                                                                          |                     | Gibson Blvd    | WBL               | 400               | 120             | 240          | 133             | 284          | 164               | 277          | 176               | 363          |
|                                                                                          |                     |                | WBT               | -                 | 244             | 1130         | 267             | 1247         | 265               | 1156         | 305               | 1273         |
|                                                                                          |                     |                | WBR               | 200               | 0               | 69           | 4               | 81           | 0                 | 69           | 4                 | 81           |
|                                                                                          |                     | Yale Blvd      | NBL               | -                 | 63              | 113          | 68              | 118          | 49                | 98           | 54                | 102          |
|                                                                                          |                     |                | NBT               | -                 | 91              | 101          | 97              | 105          | 100               | 106          | 107               | 110          |
|                                                                                          |                     |                | NBR               | -                 | 75              | 72           | 78              | 73           | 70                | 77           | 70                | 70           |
|                                                                                          |                     | Yale Blvd      | SBL               | 200               | 104             | 94           | 112             | 97           | 104               | 93           | 112               | 96           |
|                                                                                          |                     |                | SBT               | -                 | 74              | 218          | 78              | 237          | 93                | 239          | 97                | 256          |
| 2 Gibson Blvd/Walker Rd                                                                  | STOP                | Gibson Blvd    | EBT               | -                 | 0               | 0            | 383             | 0            | 763               | 307          | 390               | 0            |
|                                                                                          |                     |                | EBR               | 125               | 0               | 0            | 0               | 0            | 16                | 0            | 7                 | 0            |
|                                                                                          |                     | Gibson Blvd    | WBL               | 175               | 22              | 34           | 29              | 21           | 108               | 53           | 103               | 70           |
|                                                                                          |                     |                | WBT               | -                 | 0               | 0            | 0               | 0            | 0                 | 0            | 0                 | 0            |
|                                                                                          |                     | Walker Rd      | NBR               | -                 | 28              | 33           | 22              | 49           | 80                | 43           | 65                | 49           |
| 3 Miles Rd/Walker Rd                                                                     | STOP                | Miles Rd       | EBLT              | -                 | 0               | 0            | 0               | 0            | 0                 | 0            | 0                 | 0            |
|                                                                                          |                     | Miles Rd       | WBTR              | -                 | 0               | 0            | 0               | 0            | 0                 | 0            | 0                 | 0            |
|                                                                                          |                     | Walker Rd      | SBL               | -                 | 7.5             | 5            | 7.5             | 5            | 20                | 12.5         | 20                | 12.5         |
|                                                                                          |                     |                | SBR               | -                 | 0               | 2.5          | 0               | 2.5          | 0                 | 2.5          | 0                 | 2.5          |
| 4 Miles Rd/Yale Blvd<br><br><i>Intersection Improvements:<br/>EBR and NBL Lane added</i> | STOP                | Miles Rd       | EBLTR             | -                 | 0               | 7.5          | 0               | 7.5          | 55                | 130          | 62.5              | 177.5        |
|                                                                                          |                     | Miles Rd       | WBLTR             | -                 | 2.5             | 7.5          | 2.5             | 7.5          | 2.5               | 15           | 2.5               | 20           |
|                                                                                          |                     | Yale Blvd      | NBLTR             | -                 | 0               | 0            | 0               | 0            | 17.5              | 25           | 17.5              | 27.5         |
|                                                                                          |                     |                | NBR               | -                 | 0               | 0            | 0               | 0            | 0                 | 0            | 0                 | 0            |
|                                                                                          |                     | Yale Blvd      | SBL               | 60                | 0               | 2.5          | 0               | 2.5          | 0                 | 5            | 0                 | 5            |
|                                                                                          |                     |                | SBTR              | -                 | 0               | 0            | 0               | 0            | 0                 | 0            | 0                 | 0            |
|                                                                                          | STOP                | Miles Rd       | EBLT              | -                 | N/A             | N/A          | N/A             | N/A          | 15                | 32.5         | 15                | 40           |
|                                                                                          |                     | Miles Rd       | EBR               | 100               | N/A             | N/A          | N/A             | N/A          | 27.5              | 37.5         | 27.5              | 40           |
|                                                                                          |                     |                | WBLTR             | -                 | N/A             | N/A          | N/A             | N/A          | 2.5               | 12.5         | 2.5               | 15           |
|                                                                                          |                     | Yale Blvd      | NBL               | 200               | N/A             | N/A          | N/A             | N/A          | 17.5              | 25           | 17.5              | 27.5         |
|                                                                                          |                     |                | NBTR              | -                 | N/A             | N/A          | N/A             | N/A          | 0                 | 0            | 0                 | 0            |
|                                                                                          |                     | Yale Blvd      | SBL               | 60                | N/A             | N/A          | N/A             | N/A          | 0                 | 5            | 0                 | 5            |
|                                                                                          |                     |                | SBTR              | -                 | N/A             | N/A          | N/A             | N/A          | 0                 | 0            | 0                 | 0            |
| 5 Miles Rd/SE Site Access                                                                | STOP                | Miles Rd       | EBLT              | -                 | N/A             | N/A          | N/A             | N/A          | 0                 | 0            | 0                 | 0            |
|                                                                                          |                     | Miles Rd       | WBTR              | -                 | N/A             | N/A          | N/A             | N/A          | 0                 | 0            | 0                 | 0            |
|                                                                                          |                     | SE Site Access | SBLR              | -                 | N/A             | N/A          | N/A             | N/A          | 12.5              | 7.5          | 12.5              | 7.5          |
| 6 Miles Rd/S Site Access                                                                 | STOP                | Miles Rd       | EBLT              | -                 | N/A             | N/A          | N/A             | N/A          | 2.5               | 2.5          | 2.5               | 2.5          |
|                                                                                          |                     | Miles Rd       | WBTR              | -                 | N/A             | N/A          | N/A             | N/A          | 0                 | 0            | 0                 | 0            |
|                                                                                          |                     | S Site Access  | SBLR              | -                 | N/A             | N/A          | N/A             | N/A          | 12.5              | 10           | 12.5              | 10           |
| 7 Miles Rd/SW Site Access                                                                | STOP                | Miles Rd       | EBLT              | -                 | N/A             | N/A          | N/A             | N/A          | 2.5               | 2.5          | 2.5               | 2.5          |
|                                                                                          |                     | Miles Rd       | WBTR              | -                 | N/A             | N/A          | N/A             | N/A          | 0                 | 0            | 0                 | 0            |
|                                                                                          |                     | SW Site Access | SBLR              | -                 | N/A             | N/A          | N/A             | N/A          | 12.5              | 7.5          | 12.5              | 7.5          |
| 8 Gibson Blvd/NW Site Access                                                             | STOP                | Gibson Blvd    | EBTR              | -                 | N/A             | N/A          | N/A             | N/A          | 0                 | 0            | 0                 | 10           |
|                                                                                          |                     | Gibson Blvd    | WBT               | -                 | N/A             | N/A          | N/A             | N/A          | 0                 | 9            | 0                 | 0            |
|                                                                                          |                     | NW Site Access | NBR               | -                 | N/A             | N/A          | N/A             | N/A          | 99                | 68           | 110               | 69           |
| 9 Gibson Blvd/NE Site Access                                                             | STOP                | Gibson Blvd    | EBTR              | -                 | N/A             | N/A          | N/A             | N/A          | 77                | 0            | 73                | 10           |
|                                                                                          |                     | Gibson Blvd    | WBT               | -                 | N/A             | N/A          | N/A             | N/A          | 0                 | 0            | 17                | 0            |
|                                                                                          |                     | NE Site Access | NBR               | -                 | N/A             | N/A          | N/A             | N/A          | 106               | 68           | 129               | 72           |

Notes : (1) Queue length is based on the 95th percentile queue as reported by Synchro, Version 10.

\*SimTraffic used to evaluate to accurately reflect operations due to platooning from nearby signals

## VII. Conclusions and Recommendations

### Conclusions

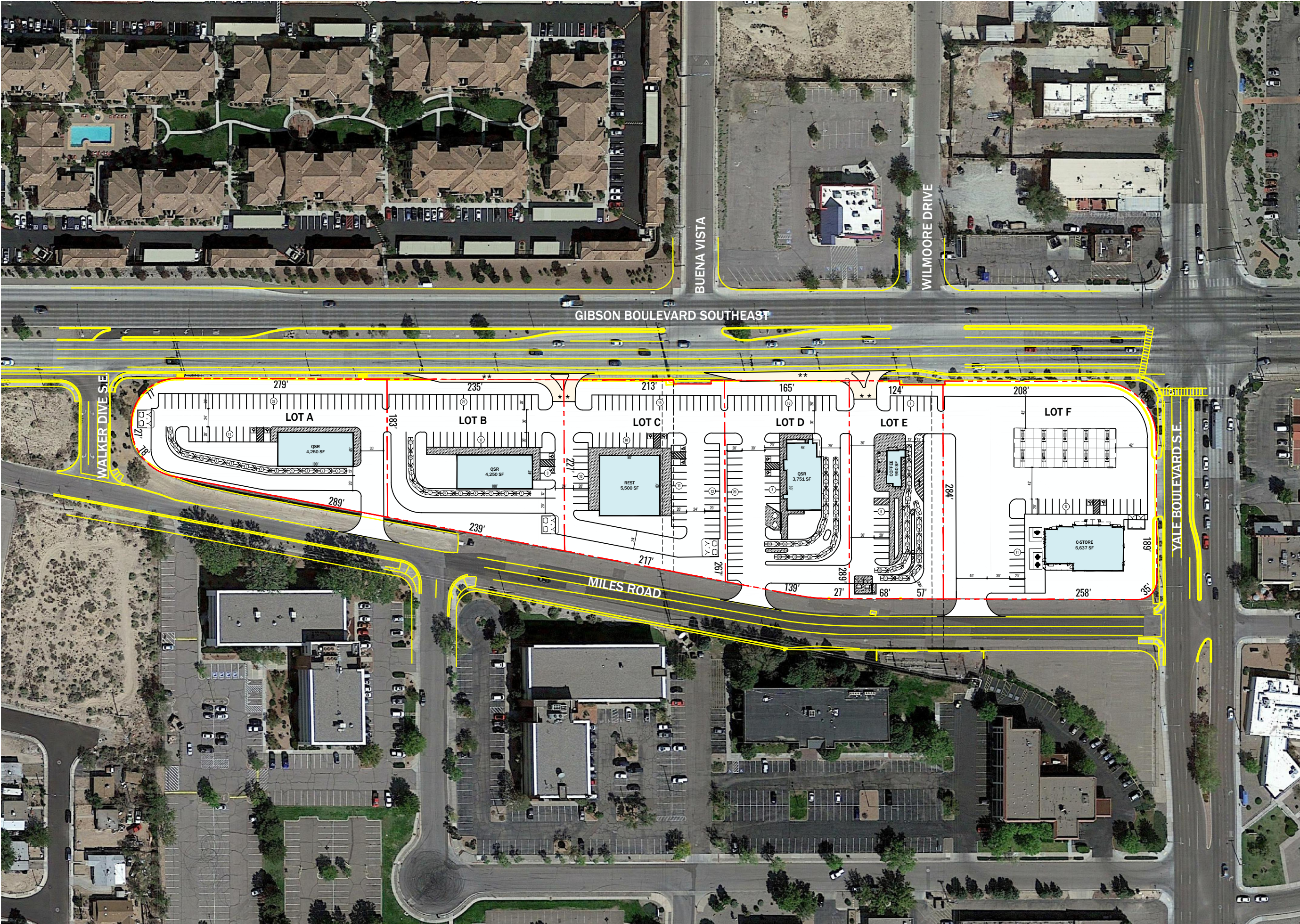
Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the intersections within the study area currently operate at overall acceptable levels of service (LOS) “E” or better during the weekday AM and PM peak hours.
- Under background future 2023 and 2040 traffic conditions, without the development of the subject site, delays would increase slightly at study intersections due to regional traffic growth.
- The proposed site development would generate, upon completion and full occupancy, 676 net new weekday AM and 479 net new weekday PM peak hour vehicle trips as well as 8,325 net new weekday daily trips.
- Under total future traffic conditions with development of the site, the Miles Road/Yale Boulevard intersection would require improvements to operate with acceptable levels of service and sufficient queueing.

### Recommendations

- The Applicant should construct their entrances along Miles Road and Gibson Boulevard consistent with the attached plan.
- The following improvements should be constructed at the Miles Road/Yale Boulevard intersection:
  - Dedicated eastbound right turn lane (100' of storage)
  - Dedicated northbound left turn lane (200' of storage)

## **APPENDIX A – Full Sized Conceptual Plan**



NOTES

LAYOUT IS SCHEMATIC ONLY AND IS SUBJECT TO REVIEW AND APPROVAL BY GOVERNING AGENCIES. PROPERTY LINES AND EXISTING CONDITIONS ARE FROM GIS INFORMATION AND HAS NOT BEEN CONFIRMED BY COMMERCIAL SITE PLAN.

ALL DIMENSIONS SHOWN ARE TO FACE OF CURB AND/OR FACE OF STRUCTURE UNLESS NOTED OTHERWISE.

SYMBOLS

PAVEMENT STRIPING

CONCRETE

ADA STALL

PARKING COUNTS

DRIVE-THRU STACKING

SITE DATA

LOT A

LOT AREA

BUILDING

PARKING

RATIO

±1.15 AC

4,250 SF

44 SPACES

10.4 / 1,000

LOT B

LOT AREA

BUILDING

PARKING

RATIO

±1.10 AC

4,250 SF

42 SPACES

9.9 / 1,000

LOT C

LOT AREA

BUILDING

PARKING

RATIO

±1.20 AC

5,500 SF

63 SPACES

11.5 / 1,000

LOT D

LOT AREA

BUILDING

PARKING

RATIO

±1.06 AC

3,751 SF

44 SPACES

11.7 / 1,000

LOT E

LOT AREA

BUILDING

PARKING

RATIO

±0.82 AC

950 SF

16 SPACES

16.8 / 1,000

LOT F

LOT AREA

BUILDING

PARKING

RATIO

±1.85 AC

5,637 SF

28 SPACES

5.0 / 1,000

\*\* Gibson Boulevard RIRO

Access subject to

Government Approval

0

60'

120'

NORTH

SCALE: 1" = 120'

project

ALBUQUERQUE,  
NEW MEXICO

GIBSON BOULEVARD  
YALE BOULEVARD

drawing title

CONCEPTUAL  
SITE PLAN

date

05.25.2021

drawing no.

1.9

## **APPENDIX B – Study Scope Meeting Notes**



# City of Albuquerque

Planning Department  
Development Review Services Division

## Traffic Scoping Form (REV 12/2020)

**Project Title:** Gibson Yale Development **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_  
**Zone Atlas Page:** \_\_\_\_\_ **DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_  
**Legal Description:** \_\_\_\_\_  
**City Address:** 2121 Yale Boulevard SE Albuquerque, NM 87106  
**Applicant:** Galloway **Contact:** Brian Horan  
**Address:** 6162 S Willow Dr Suite 320 Greenwood Village, CO 80111  
**Phone#:** 303-770-8884 **Fax#:** \_\_\_\_\_ **E-mail:** brianhoran@gallowayus.com

### Development Information

**Build out/Implementation Year:** 2023 **Current/Proposed Zoning:** NR-C  
**Project Type:** New: ☐ Change of Use: ☐ Same Use/Unchanged: ☐ Same Use/Increased Activity: ☒  
**Proposed Use (mark all that apply):** Residential: ☐ Office: ☐ Retail: ☒ Mixed-Use: ☒  
**Describe development and Uses:**  
Redevelopment of approximately seven (7) acre property to allow for several individually platted lots for future commercial land uses,  
as allowed per current zoning  
**Days and Hours of Operation (if known):** n/a

### Facility

**Building Size (sq. ft.):** (Approximate) Lot A: 3000 SF, Lot B: 4500 SF, Lot C: 7000 SF, Lot D: 3800 SF, Lot E: 950 SF, Lot F: 5600 SF  
**Number of Residential Units:** 0  
**Number of Commercial Units:** 6

### Traffic Considerations

**Expected Number of Daily Visitors/Patrons (if known):\*** n/a  
**Expected Number of Employees (if known):\*** n/a  
**Expected Number of Delivery Trucks/Buses per Day (if known):\*** n/a  
**Trip Generations during PM/AM Peak Hour (if known):\*** AM: 919/PM: 726  
**Driveway(s) Located on:** Street Name Two driveways (2) on Gibson Blvd & two (2) on Miles Rd  
**Adjacent Roadway(s) Posted Speed:** Street Name Gibson Blvd Posted Speed 45 MPH  
Street Name Yale Blvd Posted Speed 40 MPH

\* If these values are not known, assumptions will be made by City staff. Depending on the assumptions, a full TIS may be required

## **Roadway Information (adjacent to site)**

Comprehensive Plan Corridor Designation/Functional Classification: Gibson: Regional Principal Arterial, Yale: Minor Arterial  
(arterial, collector, local, main street)

Comprehensive Plan Center Designation: Urban Center  
(urban center, employment center, activity center)

Jurisdiction of roadway (NMDOT, City, County): NMDOT

Adjacent Roadway(s) Traffic Volume: Gibson: 7290 ADT/ Yale: 4150 ADT Volume-to-Capacity Ratio: 0.25-0.75  
(if applicable)

Adjacent Transit Service(s): ABQ RIDE Route 16 and 50 Nearest Transit Stop(s): Route 16: Gibson@Yale, Route 50: Yale@Gibson

Is site within 660 feet of Premium Transit?: \_\_\_\_\_

Current/Proposed Bicycle Infrastructure: Current bike lane on Gibson, proposed bike lane on Yale  
(bike lanes, trails)

Current/Proposed Sidewalk Infrastructure: \_\_\_\_\_

## **Relevant Web-sites for Filling out Roadway Information:**

City GIS Information: <http://www.cabq.gov/gis/advanced-map-viewer>

Comprehensive Plan Corridor/Designation: <https://abc-zone.com/document/abc-comp-plan-chapter-5-land-use> (map after Page 5-5)

Road Corridor Classification: <https://www.mrcog-nm.gov/DocumentCenter/View/1920/Long-Range-Roadway-System-LRRS-PDF?bidId=>

Traffic Volume and V/C Ratio: <https://www.mrcog-nm.gov/285/Traffic-Counts> and <https://public.mrcog-nm.gov/taqa/>

Bikeways: [http://documents.cabq.gov/planning/adopted-longrange-plans/BTFP/Final/BTFP%20FINAL\\_Jun25.pdf](http://documents.cabq.gov/planning/adopted-longrange-plans/BTFP/Final/BTFP%20FINAL_Jun25.pdf) (Map Pages 75 to 81)

## **TIS Determination**

**Note:** Changes made to development proposals / assumptions, from the information provided above, will result in a new TIS determination.

Traffic Impact Study (TIS) Required: Yes ☒ No ☐ Borderline ☐

Thresholds Met? Yes ☒ No ☐

Mitigating Reasons for Not Requiring TIS: \_\_\_\_\_ Previously Studied: ☐

Notes:



5/18/2021

TRAFFIC ENGINEER

DATE

## **Submittal**

The Scoping Form must be submitted as part of any building permit application, DRB application, or EPC application. See the Development Process Manual Chapter 7.4 for additional information.

Submit by email to the City Traffic Engineer [mgrush@cabq.gov](mailto:mgrush@cabq.gov) . Call 924-3362 for information.

### **Site Plan/Traffic Scoping Checklist**

Site plan, building size in sq. ft. (show new, existing, remodel), to include the following items as applicable:

1. Access -- location and width of driveways
2. Sidewalks (Check DPM and IDO for sidewalk requirements. Also, Centers have wider sidewalk requirements.)
3. Bike Lanes (check for designated bike routes, long range bikeway system) ([\*check MRCOG Bikeways and Trails in the 2040 MTP map\*](#))
4. Location of nearby multi-use trails, if applicable ([\*check MRCOG Bikeways and Trails in the 2040 MTP map\*](#))
5. Location of nearby transit stops, transit stop amenities (eg. bench, shelter). Note if site is within 660 feet of premium transit.
6. Adjacent roadway(s) configuration (number of lanes, lane widths, turn bays, medians, etc.)
7. Distance from access point(s) to nearest adjacent driveways/intersections.
8. Note if site is within a Center and more specifically if it is within an Urban Center.
9. Note if site is adjacent to a Main Street.
10. Identify traffic volumes on adjacent roadway per MRCOG information. If site generates more than 100 vehicles per hour, identify v/c ratio on this form.

## **APPENDIX C – LOS Descriptions**

## Level of Service for Signalized Intersections

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average stopped delay per vehicle for a 15-min analysis period. The criteria are given in Exhibit 16-2. Delay may be measured in the field or estimated using procedures presented later in this chapter. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

**LOS A** describes operations with very low delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

**LOS B** describes operations with delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

Exhibit 16-2. Level-of-Service Criteria for Signalized Intersections

| LEVEL OF SERVICE | STOPPED DELAY PER VEHICLE (SEC) |
|------------------|---------------------------------|
| A                | $\leq 10.0$                     |
| B                | $> 10.0$ and $\leq 20.0$        |
| C                | $> 20.0$ and $\leq 35.0$        |
| D                | $> 35.0$ and $\leq 55.0$        |
| E                | $> 55.0$ and $\leq 80.0$        |
| F                | $> 80.0$                        |

**LOS C** describes operations with delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

**LOS D** describes operations with delay greater than 35 and up to 55 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

**LOS E** describes operations with delay greater than 55 and up to 80 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

**LOS F** describes operations with delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

## Level of Service Criteria for Stop Sign Controlled Intersections

The level of service criteria are given in Table 17-2. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. . . .

Table 17-2. Level of Service Criteria for TWSC Intersections

| LEVEL OF SERVICE | AVERAGE CONTROL DELAY<br>(sec/veh) |
|------------------|------------------------------------|
| A                | $\leq 10$                          |
| B                | $> 10 \text{ and } \leq 15$        |
| C                | $> 15 \text{ and } \leq 25$        |
| D                | $> 25 \text{ and } \leq 35$        |
| E                | $> 35 \text{ and } \leq 50$        |
| F                | $> 50$                             |

Average total delay less than 10 sec/veh is defined as Level of Service (LOS) A. Follow-up times of less than 5 sec have been measured when there is no conflicting traffic for a minor street movement, so control delays of less than 10 sec/veh are appropriate for low flow conditions. To remain consistent with the AWSC intersection analysis procedure described later in this chapter, a total delay of 50 sec/veh is assumed as the break point between LOS E and F.

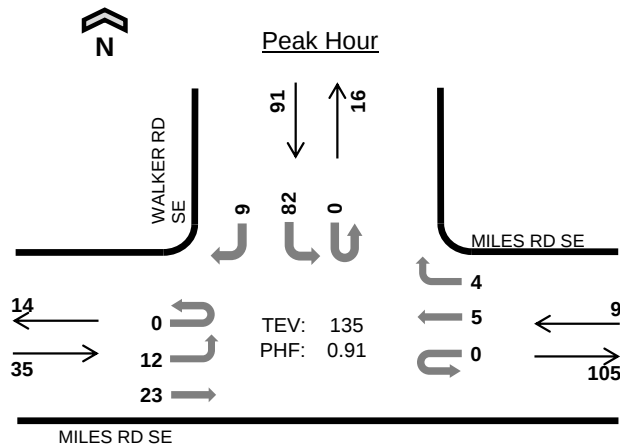
The proposed level of service criteria for TWSC intersections are somewhat different from the criteria used in Chapter 16 for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, where drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. . . .

LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queueing on the minor approaches. The method, however, is based on a constant critical gap size - that is, the critical gap remains constant, no matter how long the side street motorist waits. LOS F may also appear in the form of side street vehicles' selecting smaller-than-usual gaps. In such cases, safety may be a problem and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior. The latter is more difficult to observe on the field than queueing, which is more obvious.

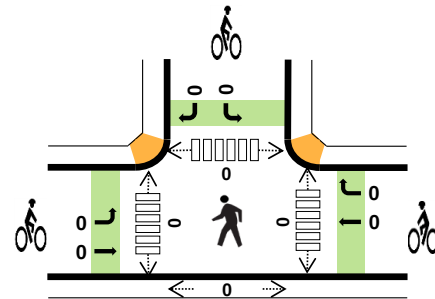
Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

## **APPENDIX D – Traffic Counts**

# WALKER RD SE MILES RD SE



Date: Wed, Jun 23, 2021  
Count Period: 7:00 AM to 9:00 AM  
Peak Hour: 7:45 AM to 8:45 AM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 5.7%  | 0.67 |
| WB    | 0.0%  | 0.56 |
| NB    | -     | -    |
| SB    | 1.1%  | 0.91 |
| TOTAL | 2.2%  | 0.91 |

## Two-Hour Count Summaries

| Interval<br>Start |     | MILES RD SE |    |    |    | MILES RD SE |    |    |    | 0          |    |    |    | WALKER RD SE |     |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|-----|-------------|----|----|----|-------------|----|----|----|------------|----|----|----|--------------|-----|----|----|-----------------|---------------------|
|                   |     | Eastbound   |    |    |    | Westbound   |    |    |    | Northbound |    |    |    | Southbound   |     |    |    |                 |                     |
|                   |     | UT          | LT | TH | RT | UT          | LT | TH | RT | UT         | LT | TH | RT | UT           | LT  | TH | RT |                 |                     |
| 7:00 AM           |     | 0           | 2  | 5  | 0  | 0           | 0  | 0  | 1  | 0          | 0  | 0  | 0  | 0            | 13  | 0  | 1  | 22              | 0                   |
| 7:15 AM           |     | 0           | 1  | 4  | 0  | 0           | 0  | 2  | 1  | 0          | 0  | 0  | 0  | 0            | 14  | 0  | 2  | 24              | 0                   |
| 7:30 AM           |     | 0           | 1  | 2  | 0  | 0           | 0  | 2  | 0  | 0          | 0  | 0  | 0  | 0            | 21  | 0  | 1  | 27              | 0                   |
| 7:45 AM           |     | 0           | 2  | 5  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 24  | 0  | 0  | 31              | 104                 |
| 8:00 AM           |     | 0           | 3  | 4  | 0  | 0           | 0  | 2  | 1  | 0          | 0  | 0  | 0  | 0            | 20  | 0  | 4  | 34              | 116                 |
| 8:15 AM           |     | 0           | 2  | 6  | 0  | 0           | 0  | 1  | 3  | 0          | 0  | 0  | 0  | 0            | 23  | 0  | 2  | 37              | 129                 |
| 8:30 AM           |     | 0           | 5  | 8  | 0  | 0           | 0  | 2  | 0  | 0          | 0  | 0  | 0  | 0            | 15  | 0  | 3  | 33              | 135                 |
| 8:45 AM           |     | 0           | 2  | 3  | 0  | 0           | 0  | 4  | 3  | 0          | 0  | 0  | 0  | 0            | 13  | 0  | 3  | 28              | 132                 |
| Count Total       |     | 0           | 18 | 37 | 0  | 0           | 0  | 13 | 9  | 0          | 0  | 0  | 0  | 0            | 143 | 0  | 16 | 236             | 0                   |
| Peak<br>Hour      | All | 0           | 12 | 23 | 0  | 0           | 0  | 5  | 4  | 0          | 0  | 0  | 0  | 0            | 82  | 0  | 9  | 135             | 0                   |
|                   | HV  | 0           | 0  | 2  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 1   | 0  | 0  | 3               | 0                   |
|                   | HV% | -           | 0% | 9% | -  | -           | -  | 0% | 0% | -          | -  | -  | -  | -            | 1%  | -  | 0% | 2%              | 0                   |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

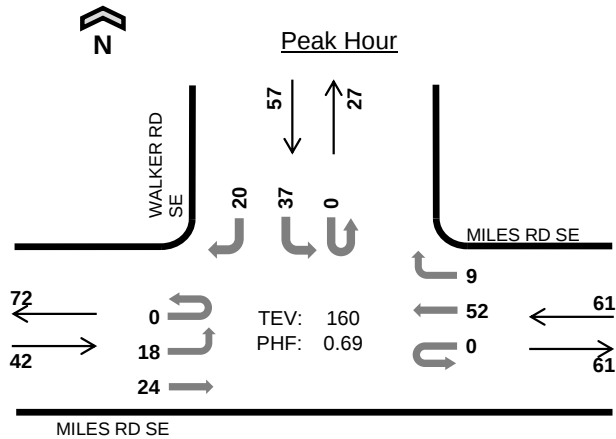
| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 7:00 AM        | 1                    | 0  | 0  | 0  | 1     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:15 AM        | 1                    | 0  | 0  | 0  | 1     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:30 AM        | 0                    | 0  | 0  | 0  | 0     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:45 AM        | 1                    | 0  | 0  | 0  | 1     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:00 AM        | 0                    | 0  | 0  | 0  | 0     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:15 AM        | 0                    | 0  | 0  | 0  | 0     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:30 AM        | 1                    | 0  | 0  | 1  | 2     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:45 AM        | 0                    | 0  | 0  | 0  | 0     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| Count Total    | 4                    | 0  | 0  | 1  | 5     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| Peak Hr        | 2                    | 0  | 0  | 1  | 3     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |

| Two-Hour Count Summaries - Heavy Vehicles |             |    |    |    |             |    |    |    |            |    |    |    |              |    |    |    |                 |                     |
|-------------------------------------------|-------------|----|----|----|-------------|----|----|----|------------|----|----|----|--------------|----|----|----|-----------------|---------------------|
| Interval<br>Start                         | MILES RD SE |    |    |    | MILES RD SE |    |    |    | 0          |    |    |    | WALKER RD SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|                                           | Eastbound   |    |    |    | Westbound   |    |    |    | Northbound |    |    |    | Southbound   |    |    |    |                 |                     |
|                                           | UT          | LT | TH | RT | UT          | LT | TH | RT | UT         | LT | TH | RT | UT           | LT | TH | RT |                 |                     |
| 7:00 AM                                   | 0           | 0  | 1  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 1               | 0                   |
| 7:15 AM                                   | 0           | 0  | 1  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 1               | 0                   |
| 7:30 AM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 0               | 0                   |
| 7:45 AM                                   | 0           | 0  | 1  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 1               | 3                   |
| 8:00 AM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 0               | 2                   |
| 8:15 AM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 0               | 1                   |
| 8:30 AM                                   | 0           | 0  | 1  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 1  | 0  | 0  | 2               | 3                   |
| 8:45 AM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 0               | 2                   |
| Count Total                               | 0           | 0  | 4  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 1  | 0  | 0  | 5               | 0                   |
| Peak Hour                                 | 0           | 0  | 2  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 1  | 0  | 0  | 3               | 0                   |

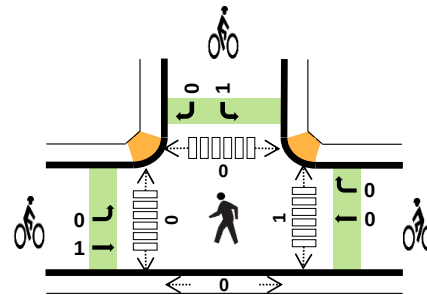
| Two-Hour Count Summaries - Bikes |             |    |    |             |    |    |            |    |    |              |    |    |                 |                     |  |  |  |  |
|----------------------------------|-------------|----|----|-------------|----|----|------------|----|----|--------------|----|----|-----------------|---------------------|--|--|--|--|
| Interval<br>Start                | MILES RD SE |    |    | MILES RD SE |    |    | 0          |    |    | WALKER RD SE |    |    | 15-min<br>Total | Rolling<br>One Hour |  |  |  |  |
|                                  | Eastbound   |    |    | Westbound   |    |    | Northbound |    |    | Southbound   |    |    |                 |                     |  |  |  |  |
|                                  | LT          | TH | RT | LT          | TH | RT | LT         | TH | RT | LT           | TH | RT |                 |                     |  |  |  |  |
| 7:00 AM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |
| 7:15 AM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |
| 7:30 AM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |
| 7:45 AM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |
| 8:00 AM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |
| 8:15 AM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |
| 8:30 AM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |
| 8:45 AM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |
| Count Total                      | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |
| Peak Hour                        | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |  |  |  |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# WALKER RD SE MILES RD SE



Date: Wed, Jun 23, 2021  
Count Period: 4:00 PM to 6:00 PM  
Peak Hour: 4:00 PM to 5:00 PM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 4.8%  | 0.55 |
| WB    | 1.6%  | 0.66 |
| NB    | -     | -    |
| SB    | 0.0%  | 0.57 |
| TOTAL | 1.9%  | 0.69 |

## Two-Hour Count Summaries

| Interval<br>Start |     | MILES RD SE |    |    |    | MILES RD SE |    |    |    | 0  |    |    |    | WALKER RD SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|-----|-------------|----|----|----|-------------|----|----|----|----|----|----|----|--------------|----|----|----|-----------------|---------------------|
|                   |     | UT          | LT | TH | RT | UT          | LT | TH | RT | UT | LT | TH | RT | UT           | LT | TH | RT |                 |                     |
| 4:00 PM           |     | 0           | 6  | 13 | 0  | 0           | 0  | 11 | 3  | 0  | 0  | 0  | 0  | 0            | 19 | 0  | 6  | 58              | 0                   |
| 4:15 PM           |     | 0           | 6  | 6  | 0  | 0           | 0  | 21 | 2  | 0  | 0  | 0  | 0  | 0            | 7  | 0  | 5  | 47              | 0                   |
| 4:30 PM           |     | 0           | 4  | 2  | 0  | 0           | 0  | 13 | 1  | 0  | 0  | 0  | 0  | 0            | 4  | 0  | 2  | 26              | 0                   |
| 4:45 PM           |     | 0           | 2  | 3  | 0  | 0           | 0  | 7  | 3  | 0  | 0  | 0  | 0  | 0            | 7  | 0  | 7  | 29              | 160                 |
| 5:00 PM           |     | 0           | 2  | 4  | 0  | 0           | 0  | 6  | 3  | 0  | 0  | 0  | 0  | 0            | 6  | 0  | 1  | 22              | 124                 |
| 5:15 PM           |     | 0           | 2  | 1  | 0  | 0           | 0  | 9  | 4  | 0  | 0  | 0  | 0  | 0            | 3  | 0  | 5  | 24              | 101                 |
| 5:30 PM           |     | 0           | 3  | 6  | 0  | 0           | 0  | 11 | 1  | 0  | 0  | 0  | 0  | 0            | 1  | 0  | 7  | 29              | 104                 |
| 5:45 PM           |     | 0           | 7  | 2  | 0  | 0           | 0  | 3  | 4  | 0  | 0  | 0  | 0  | 0            | 2  | 0  | 14 | 32              | 107                 |
| Count Total       |     | 0           | 32 | 37 | 0  | 0           | 0  | 81 | 21 | 0  | 0  | 0  | 0  | 0            | 49 | 0  | 47 | 267             | 0                   |
| Peak<br>Hour      | All | 0           | 18 | 24 | 0  | 0           | 0  | 52 | 9  | 0  | 0  | 0  | 0  | 0            | 37 | 0  | 20 | 160             | 0                   |
|                   | HV  | 0           | 0  | 2  | 0  | 0           | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 3               | 0                   |
|                   | HV% | -           | 0% | 8% | -  | -           | -  | 2% | 0% | -  | -  | -  | -  | -            | 0% | -  | 0% | 2%              | 0                   |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 4:00 PM        | 1                    | 1  | 0  | 0  | 2     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:15 PM        | 0                    | 0  | 0  | 0  | 0     | 1        | 0  | 0  | 1  | 2     | 0                          | 0    | 0     | 0     | 0     |
| 4:30 PM        | 0                    | 0  | 0  | 0  | 0     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:45 PM        | 1                    | 0  | 0  | 0  | 1     | 0        | 0  | 0  | 0  | 0     | 1                          | 0    | 0     | 0     | 1     |
| 5:00 PM        | 0                    | 0  | 0  | 0  | 0     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:15 PM        | 0                    | 0  | 0  | 0  | 0     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:30 PM        | 0                    | 1  | 0  | 0  | 1     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:45 PM        | 0                    | 0  | 0  | 0  | 0     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| Count Total    | 2                    | 2  | 0  | 0  | 4     | 1        | 0  | 0  | 1  | 2     | 1                          | 0    | 0     | 0     | 1     |
| Peak Hr        | 2                    | 1  | 0  | 0  | 3     | 1        | 0  | 0  | 1  | 2     | 1                          | 0    | 0     | 0     | 1     |

| Two-Hour Count Summaries - Heavy Vehicles |             |    |    |    |             |    |    |    |            |    |    |    |              |    |    |    |                 |                     |
|-------------------------------------------|-------------|----|----|----|-------------|----|----|----|------------|----|----|----|--------------|----|----|----|-----------------|---------------------|
| Interval<br>Start                         | MILES RD SE |    |    |    | MILES RD SE |    |    |    | 0          |    |    |    | WALKER RD SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|                                           | Eastbound   |    |    |    | Westbound   |    |    |    | Northbound |    |    |    | Southbound   |    |    |    |                 |                     |
|                                           | UT          | LT | TH | RT | UT          | LT | TH | RT | UT         | LT | TH | RT | UT           | LT | TH | RT |                 |                     |
| 4:00 PM                                   | 0           | 0  | 1  | 0  | 0           | 0  | 1  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 2  | 0               |                     |
| 4:15 PM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 0               |                     |
| 4:30 PM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 0               |                     |
| 4:45 PM                                   | 0           | 0  | 1  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 1  | 3               |                     |
| 5:00 PM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 1               |                     |
| 5:15 PM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 1               |                     |
| 5:30 PM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 1  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 1  | 2               |                     |
| 5:45 PM                                   | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 1               |                     |
| Count Total                               | 0           | 0  | 2  | 0  | 0           | 0  | 2  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 4  | 0               |                     |
| Peak Hour                                 | 0           | 0  | 2  | 0  | 0           | 0  | 1  | 0  | 0          | 0  | 0  | 0  | 0            | 0  | 0  | 3  | 0               |                     |

| Two-Hour Count Summaries - Bikes |             |    |    |             |    |    |            |    |    |              |    |    |                 |                     |  |
|----------------------------------|-------------|----|----|-------------|----|----|------------|----|----|--------------|----|----|-----------------|---------------------|--|
| Interval<br>Start                | MILES RD SE |    |    | MILES RD SE |    |    | 0          |    |    | WALKER RD SE |    |    | 15-min<br>Total | Rolling<br>One Hour |  |
|                                  | Eastbound   |    |    | Westbound   |    |    | Northbound |    |    | Southbound   |    |    |                 |                     |  |
|                                  | LT          | TH | RT | LT          | TH | RT | LT         | TH | RT | LT           | TH | RT |                 |                     |  |
| 4:00 PM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |
| 4:15 PM                          | 0           | 1  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 1            | 0  | 0  | 2               | 0                   |  |
| 4:30 PM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |
| 4:45 PM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 2                   |  |
| 5:00 PM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 2                   |  |
| 5:15 PM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |
| 5:30 PM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |
| 5:45 PM                          | 0           | 0  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |  |
| Count Total                      | 0           | 1  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 1            | 0  | 0  | 2               | 0                   |  |
| Peak Hour                        | 0           | 1  | 0  | 0           | 0  | 0  | 0          | 0  | 0  | 1            | 0  | 0  | 2               | 0                   |  |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# WALKER RD SE GIBSON BLVD SE

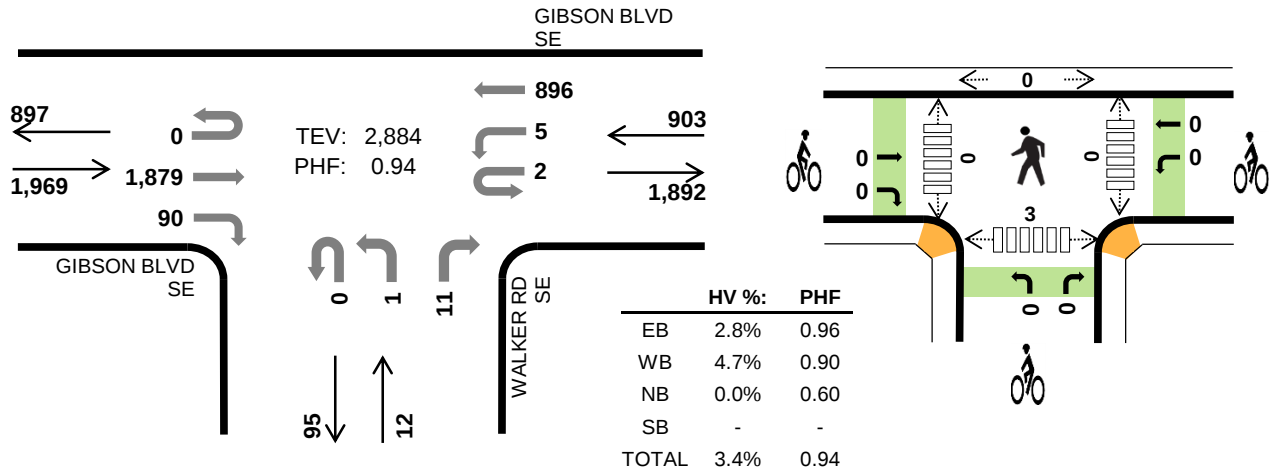


Peak Hour

Date: Wed, Jun 23, 2021

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:30 AM to 8:30 AM



## Two-Hour Count Summaries

| Interval Start |     | GIBSON BLVD SE |    |       |     | GIBSON BLVD SE |    |       |    | WALKER RD SE |    |    |    | 0          |    |    |    | 15-min Total | Rolling One Hour |
|----------------|-----|----------------|----|-------|-----|----------------|----|-------|----|--------------|----|----|----|------------|----|----|----|--------------|------------------|
|                |     | Eastbound      |    |       |     | Westbound      |    |       |    | Northbound   |    |    |    | Southbound |    |    |    |              |                  |
|                |     | UT             | LT | TH    | RT  | UT             | LT | TH    | RT | UT           | LT | TH | RT | UT         | LT | TH | RT |              |                  |
| 7:00 AM        |     | 0              | 0  | 483   | 13  | 0              | 1  | 143   | 0  | 0            | 0  | 0  | 2  | 0          | 0  | 0  | 0  | 642          | 0                |
| 7:15 AM        |     | 0              | 0  | 447   | 16  | 0              | 0  | 207   | 0  | 0            | 0  | 0  | 3  | 0          | 0  | 0  | 0  | 673          | 0                |
| 7:30 AM        |     | 0              | 0  | 456   | 22  | 1              | 0  | 234   | 0  | 0            | 0  | 0  | 1  | 0          | 0  | 0  | 0  | 714          | 0                |
| 7:45 AM        |     | 0              | 0  | 487   | 24  | 0              | 0  | 251   | 0  | 0            | 1  | 0  | 1  | 0          | 0  | 0  | 0  | 764          | 2,793            |
| 8:00 AM        |     | 0              | 0  | 491   | 21  | 1              | 3  | 200   | 0  | 0            | 0  | 0  | 5  | 0          | 0  | 0  | 0  | 721          | 2,872            |
| 8:15 AM        |     | 0              | 0  | 445   | 23  | 0              | 2  | 211   | 0  | 0            | 0  | 0  | 4  | 0          | 0  | 0  | 0  | 685          | 2,884            |
| 8:30 AM        |     | 1              | 0  | 450   | 19  | 1              | 1  | 207   | 0  | 0            | 0  | 0  | 5  | 0          | 0  | 0  | 0  | 684          | 2,854            |
| 8:45 AM        |     | 0              | 0  | 382   | 11  | 0              | 3  | 203   | 0  | 0            | 0  | 0  | 5  | 0          | 0  | 0  | 0  | 604          | 2,694            |
| Count Total    |     | 1              | 0  | 3,641 | 149 | 3              | 10 | 1,656 | 0  | 0            | 1  | 0  | 26 | 0          | 0  | 0  | 0  | 5,487        | 0                |
| Peak Hour      | All | 0              | 0  | 1,879 | 90  | 2              | 5  | 896   | 0  | 0            | 1  | 0  | 11 | 0          | 0  | 0  | 0  | 2,884        | 0                |
|                | HV  | 0              | 0  | 55    | 0   | 0              | 0  | 42    | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 97           | 0                |
|                | HV% | -              | -  | 3%    | 0%  | 0%             | 0% | 5%    | -  | -            | 0% | -  | 0% | -          | -  | -  | -  | 3%           | 0                |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 7:00 AM        | 14                   | 6  | 0  | 0  | 20    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 1     | 1     |
| 7:15 AM        | 11                   | 6  | 0  | 0  | 17    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:30 AM        | 11                   | 9  | 0  | 0  | 20    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:45 AM        | 18                   | 7  | 0  | 0  | 25    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 1     | 1     |
| 8:00 AM        | 14                   | 10 | 0  | 0  | 24    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 2     | 2     |
| 8:15 AM        | 12                   | 16 | 0  | 0  | 28    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:30 AM        | 14                   | 10 | 0  | 0  | 24    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:45 AM        | 20                   | 8  | 0  | 0  | 28    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| Count Total    | 114                  | 72 | 0  | 0  | 186   | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 4     | 4     |
| Peak Hr        | 55                   | 42 | 0  | 0  | 97    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 3     | 3     |

**Two-Hour Count Summaries - Heavy Vehicles**

| Interval<br>Start | GIBSON BLVD SE |    |     |    | GIBSON BLVD SE |    |    |    | WALKER RD SE |    |    |    | 0          |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|-----|----|----------------|----|----|----|--------------|----|----|----|------------|----|----|----|-----------------|---------------------|
|                   | Eastbound      |    |     |    | Westbound      |    |    |    | Northbound   |    |    |    | Southbound |    |    |    |                 |                     |
|                   | UT             | LT | TH  | RT | UT             | LT | TH | RT | UT           | LT | TH | RT | UT         | LT | TH | RT |                 |                     |
| 7:00 AM           | 0              | 0  | 14  | 0  | 0              | 0  | 6  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 20              | 0                   |
| 7:15 AM           | 0              | 0  | 11  | 0  | 0              | 0  | 6  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 17              | 0                   |
| 7:30 AM           | 0              | 0  | 11  | 0  | 0              | 0  | 9  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 20              | 0                   |
| 7:45 AM           | 0              | 0  | 18  | 0  | 0              | 0  | 7  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 25              | 82                  |
| 8:00 AM           | 0              | 0  | 14  | 0  | 0              | 0  | 10 | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 24              | 86                  |
| 8:15 AM           | 0              | 0  | 12  | 0  | 0              | 0  | 16 | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 28              | 97                  |
| 8:30 AM           | 0              | 0  | 13  | 1  | 1              | 0  | 9  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 24              | 101                 |
| 8:45 AM           | 0              | 0  | 20  | 0  | 0              | 0  | 8  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 28              | 104                 |
| Count Total       | 0              | 0  | 113 | 1  | 1              | 0  | 71 | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 186             | 0                   |
| Peak Hour         | 0              | 0  | 55  | 0  | 0              | 0  | 42 | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 97              | 0                   |

**Two-Hour Count Summaries - Bikes**

| Interval<br>Start | GIBSON BLVD SE |    |    | GIBSON BLVD SE |    |    | WALKER RD SE |    |    | 0          |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----------------|----|----|--------------|----|----|------------|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    | Westbound      |    |    | Northbound   |    |    | Southbound |    |    |                 |                     |
|                   | LT             | TH | RT | LT             | TH | RT | LT           | TH | RT | LT         | TH | RT |                 |                     |
| 7:00 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 7:15 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 7:30 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 7:45 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 8:00 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 8:15 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 8:30 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 8:45 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| Count Total       | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| Peak Hour         | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.





# WALKER RD SE GIBSON BLVD SE

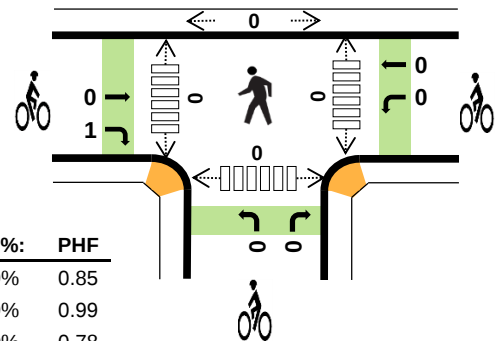
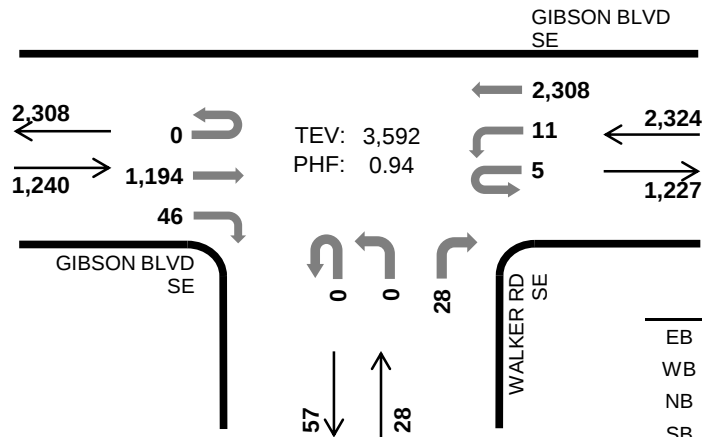


Peak Hour

Date: Wed, Jun 23, 2021

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 1.9%  | 0.85 |
| WB    | 0.9%  | 0.99 |
| NB    | 0.0%  | 0.78 |
| SB    | -     | -    |
| TOTAL | 1.3%  | 0.94 |

## Two-Hour Count Summaries

| Interval Start | GIBSON BLVD SE Eastbound |    |       |       | GIBSON BLVD SE Westbound |    |       |       | WALKER RD SE Northbound |    |    |    | WALKER RD SE Southbound |    |    |    | 15-min Total | Rolling One Hour |
|----------------|--------------------------|----|-------|-------|--------------------------|----|-------|-------|-------------------------|----|----|----|-------------------------|----|----|----|--------------|------------------|
|                | UT                       | LT | TH    | RT    | UT                       | LT | TH    | RT    | UT                      | LT | TH | RT | UT                      | LT | TH | RT |              |                  |
| 4:00 PM        | 0                        | 0  | 341   | 24    | 2                        | 1  | 578   | 0     | 0                       | 0  | 0  | 9  | 0                       | 0  | 0  | 0  | 955          | 0                |
| 4:15 PM        | 0                        | 0  | 286   | 8     | 2                        | 4  | 575   | 0     | 0                       | 0  | 0  | 9  | 0                       | 0  | 0  | 0  | 884          | 0                |
| 4:30 PM        | 0                        | 0  | 275   | 4     | 0                        | 2  | 587   | 0     | 0                       | 0  | 0  | 5  | 0                       | 0  | 0  | 0  | 873          | 0                |
| 4:45 PM        | 0                        | 0  | 292   | 10    | 1                        | 4  | 568   | 0     | 0                       | 0  | 0  | 5  | 0                       | 0  | 0  | 0  | 880          | 3,592            |
| 5:00 PM        | 0                        | 0  | 246   | 6     | 0                        | 1  | 498   | 0     | 0                       | 0  | 0  | 5  | 0                       | 0  | 0  | 0  | 756          | 3,393            |
| 5:15 PM        | 0                        | 0  | 268   | 6     | 1                        | 2  | 404   | 0     | 0                       | 0  | 0  | 6  | 0                       | 0  | 0  | 0  | 687          | 3,196            |
| 5:30 PM        | 0                        | 0  | 255   | 4     | 0                        | 4  | 440   | 0     | 0                       | 0  | 0  | 4  | 0                       | 0  | 0  | 0  | 707          | 3,030            |
| 5:45 PM        | 1                        | 0  | 236   | 8     | 0                        | 7  | 434   | 0     | 0                       | 0  | 0  | 10 | 0                       | 0  | 0  | 0  | 696          | 2,846            |
| Count Total    | 1                        | 0  | 2,199 | 70    | 6                        | 25 | 4,084 | 0     | 0                       | 0  | 0  | 53 | 0                       | 0  | 0  | 0  | 6,438        | 0                |
| Peak Hour      | All                      | 0  | 0     | 1,194 | 46                       | 5  | 11    | 2,308 | 0                       | 0  | 0  | 28 | 0                       | 0  | 0  | 0  | 3,592        | 0                |
|                | HV                       | 0  | 0     | 24    | 0                        | 0  | 0     | 21    | 0                       | 0  | 0  | 0  | 0                       | 0  | 0  | 0  | 45           | 0                |
|                | HV%                      | -  | -     | 2%    | 0%                       | 0% | 0%    | 1%    | -                       | -  | -  | 0% | -                       | -  | -  | -  | 1%           | 0                |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 4:00 PM        | 9                    | 5  | 0  | 0  | 14    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:15 PM        | 4                    | 8  | 0  | 0  | 12    | 1        | 0  | 0  | 0  | 1     | 0                          | 0    | 0     | 0     | 0     |
| 4:30 PM        | 6                    | 5  | 0  | 0  | 11    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:45 PM        | 5                    | 3  | 0  | 0  | 8     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:00 PM        | 5                    | 6  | 0  | 0  | 11    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:15 PM        | 4                    | 7  | 0  | 0  | 11    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:30 PM        | 6                    | 5  | 0  | 0  | 11    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:45 PM        | 5                    | 4  | 0  | 0  | 9     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 1     | 1     |
| Count Total    | 44                   | 43 | 0  | 0  | 87    | 1        | 0  | 0  | 0  | 1     | 0                          | 0    | 0     | 1     | 1     |
| Peak Hr        | 24                   | 21 | 0  | 0  | 45    | 1        | 0  | 0  | 0  | 1     | 0                          | 0    | 0     | 0     | 0     |

**Two-Hour Count Summaries - Heavy Vehicles**

| Interval<br>Start | GIBSON BLVD SE |    |    |    | GIBSON BLVD SE |    |    |    | WALKER RD SE |    |    |    | 0          |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----|----------------|----|----|----|--------------|----|----|----|------------|----|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    |    | Westbound      |    |    |    | Northbound   |    |    |    | Southbound |    |    |    |                 |                     |
|                   | UT             | LT | TH | RT | UT             | LT | TH | RT | UT           | LT | TH | RT | UT         | LT | TH | RT |                 |                     |
| 4:00 PM           | 0              | 0  | 9  | 0  | 0              | 0  | 5  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 14              | 0                   |
| 4:15 PM           | 0              | 0  | 4  | 0  | 0              | 0  | 8  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 12              | 0                   |
| 4:30 PM           | 0              | 0  | 6  | 0  | 0              | 0  | 5  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 11              | 0                   |
| 4:45 PM           | 0              | 0  | 5  | 0  | 0              | 0  | 3  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 8               | 45                  |
| 5:00 PM           | 0              | 0  | 5  | 0  | 0              | 0  | 6  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 11              | 42                  |
| 5:15 PM           | 0              | 0  | 4  | 0  | 0              | 0  | 7  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 11              | 41                  |
| 5:30 PM           | 0              | 0  | 6  | 0  | 0              | 0  | 5  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 11              | 41                  |
| 5:45 PM           | 0              | 0  | 5  | 0  | 0              | 0  | 4  | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 9               | 42                  |
| Count Total       | 0              | 0  | 44 | 0  | 0              | 0  | 43 | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 87              | 0                   |
| Peak Hour         | 0              | 0  | 24 | 0  | 0              | 0  | 21 | 0  | 0            | 0  | 0  | 0  | 0          | 0  | 0  | 0  | 45              | 0                   |

**Two-Hour Count Summaries - Bikes**

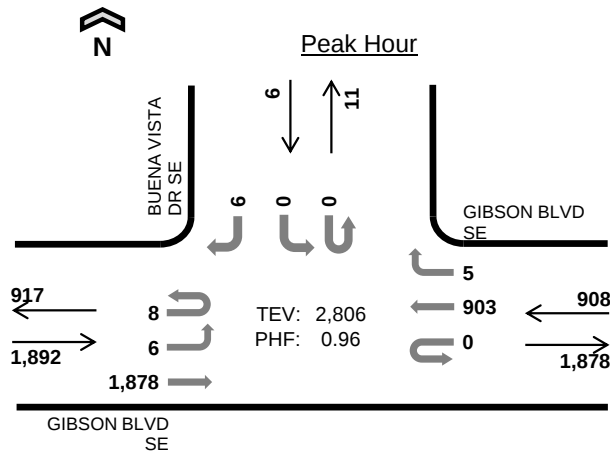
| Interval<br>Start | GIBSON BLVD SE |    |    | GIBSON BLVD SE |    |    | WALKER RD SE |    |    | 0          |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----------------|----|----|--------------|----|----|------------|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    | Westbound      |    |    | Northbound   |    |    | Southbound |    |    |                 |                     |
|                   | LT             | TH | RT | LT             | TH | RT | LT           | TH | RT | LT         | TH | RT |                 |                     |
| 4:00 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 4:15 PM           | 0              | 0  | 1  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 1               | 0                   |
| 4:30 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 4:45 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 1                   |
| 5:00 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 1                   |
| 5:15 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 5:30 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| 5:45 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 0               | 0                   |
| Count Total       | 0              | 0  | 1  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 1               | 0                   |
| Peak Hour         | 0              | 0  | 1  | 0              | 0  | 0  | 0            | 0  | 0  | 0          | 0  | 0  | 1               | 0                   |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

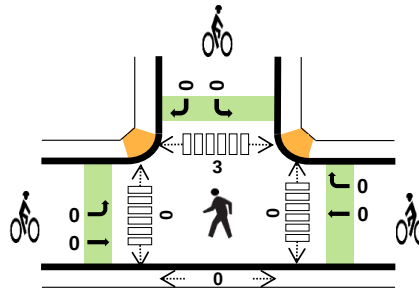




# BUENA VISTA DR SE GIBSON BLVD SE



Date: Wed, Jun 23, 2021  
Count Period: 7:00 AM to 9:00 AM  
Peak Hour: 7:30 AM to 8:30 AM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 3.0%  | 0.98 |
| WB    | 4.8%  | 0.91 |
| NB    | -     | -    |
| SB    | 0.0%  | 0.50 |
| TOTAL | 3.6%  | 0.96 |

## Two-Hour Count Summaries

| Interval<br>Start |     | GIBSON BLVD SE |    |       |    | GIBSON BLVD SE |    |       |    | 0          |    |    |    | BUENA VISTA DR SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|-----|----------------|----|-------|----|----------------|----|-------|----|------------|----|----|----|-------------------|----|----|----|-----------------|---------------------|
|                   |     | Eastbound      |    |       |    | Westbound      |    |       |    | Northbound |    |    |    | Southbound        |    |    |    |                 |                     |
|                   |     | UT             | LT | TH    | RT | UT             | LT | TH    | RT | UT         | LT | TH | RT | UT                | LT | TH | RT |                 |                     |
| 7:00 AM           |     | 0              | 0  | 475   | 0  | 0              | 0  | 141   | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 4  | 620             | 0                   |
| 7:15 AM           |     | 2              | 2  | 449   | 0  | 0              | 0  | 195   | 1  | 0          | 0  | 0  | 0  | 0                 | 1  | 0  | 2  | 652             | 0                   |
| 7:30 AM           |     | 2              | 0  | 461   | 0  | 0              | 0  | 242   | 1  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 1  | 707             | 0                   |
| 7:45 AM           |     | 2              | 2  | 474   | 0  | 0              | 0  | 249   | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 727             | 2,706               |
| 8:00 AM           |     | 2              | 2  | 481   | 0  | 0              | 0  | 203   | 1  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 3  | 692             | 2,778               |
| 8:15 AM           |     | 2              | 2  | 462   | 0  | 0              | 0  | 209   | 3  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 2  | 680             | 2,806               |
| 8:30 AM           |     | 3              | 2  | 449   | 0  | 0              | 0  | 205   | 2  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 661             | 2,760               |
| 8:45 AM           |     | 4              | 1  | 388   | 0  | 0              | 0  | 199   | 1  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 2  | 595             | 2,628               |
| Count Total       |     | 17             | 11 | 3,639 | 0  | 0              | 0  | 1,643 | 9  | 0          | 0  | 0  | 0  | 0                 | 1  | 0  | 14 | 5,334           | 0                   |
| Peak<br>Hour      | All | 8              | 6  | 1,878 | 0  | 0              | 0  | 903   | 5  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 6  | 2,806           | 0                   |
|                   | HV  | 0              | 0  | 56    | 0  | 0              | 0  | 44    | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 100             | 0                   |
|                   | HV% | 0%             | 0% | 3%    | -  | -              | -  | 5%    | 0% | -          | -  | -  | -  | -                 | -  | -  | 0% | 4%              | 0                   |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 7:00 AM        | 12                   | 4  | 0  | 0  | 16    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:15 AM        | 14                   | 6  | 0  | 0  | 20    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 1     | 0     | 1     |
| 7:30 AM        | 12                   | 9  | 0  | 0  | 21    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 1     | 0     | 1     |
| 7:45 AM        | 16                   | 9  | 0  | 0  | 25    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 2     | 0     | 2     |
| 8:00 AM        | 15                   | 8  | 0  | 0  | 23    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:15 AM        | 13                   | 18 | 0  | 0  | 31    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:30 AM        | 12                   | 12 | 0  | 0  | 24    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:45 AM        | 20                   | 7  | 0  | 1  | 28    | 0        | 0  | 0  | 0  | 0     | 1                          | 0    | 0     | 0     | 1     |
| Count Total    | 114                  | 73 | 0  | 1  | 188   | 0        | 0  | 0  | 0  | 0     | 1                          | 0    | 4     | 0     | 5     |
| Peak Hr        | 56                   | 44 | 0  | 0  | 100   | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 3     | 0     | 3     |

| Two-Hour Count Summaries - Heavy Vehicles |                |    |     |    |                |    |    |    |            |    |    |    |                   |    |    |    |                 |                     |
|-------------------------------------------|----------------|----|-----|----|----------------|----|----|----|------------|----|----|----|-------------------|----|----|----|-----------------|---------------------|
| Interval<br>Start                         | GIBSON BLVD SE |    |     |    | GIBSON BLVD SE |    |    |    | 0          |    |    |    | BUENA VISTA DR SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|                                           | Eastbound      |    |     |    | Westbound      |    |    |    | Northbound |    |    |    | Southbound        |    |    |    |                 |                     |
|                                           | UT             | LT | TH  | RT | UT             | LT | TH | RT | UT         | LT | TH | RT | UT                | LT | TH | RT |                 |                     |
| 7:00 AM                                   | 0              | 0  | 12  | 0  | 0              | 0  | 4  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 16              | 0                   |
| 7:15 AM                                   | 0              | 0  | 14  | 0  | 0              | 0  | 6  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 20              | 0                   |
| 7:30 AM                                   | 0              | 0  | 12  | 0  | 0              | 0  | 9  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 21              | 0                   |
| 7:45 AM                                   | 0              | 0  | 16  | 0  | 0              | 0  | 9  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 25              | 82                  |
| 8:00 AM                                   | 0              | 0  | 15  | 0  | 0              | 0  | 8  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 23              | 89                  |
| 8:15 AM                                   | 0              | 0  | 13  | 0  | 0              | 0  | 18 | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 31              | 100                 |
| 8:30 AM                                   | 0              | 0  | 12  | 0  | 0              | 0  | 10 | 2  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 24              | 103                 |
| 8:45 AM                                   | 0              | 0  | 20  | 0  | 0              | 0  | 7  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 1  | 28              | 106                 |
| Count Total                               | 0              | 0  | 114 | 0  | 0              | 0  | 71 | 2  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 1  | 188             | 0                   |
| Peak Hour                                 | 0              | 0  | 56  | 0  | 0              | 0  | 44 | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 100             | 0                   |

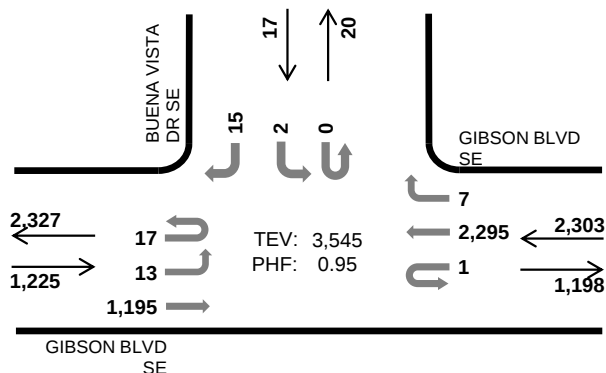
| Two-Hour Count Summaries - Bikes |                |    |    |                |    |    |            |    |    |                   |    |    |                 |                     |  |  |  |  |
|----------------------------------|----------------|----|----|----------------|----|----|------------|----|----|-------------------|----|----|-----------------|---------------------|--|--|--|--|
| Interval<br>Start                | GIBSON BLVD SE |    |    | GIBSON BLVD SE |    |    | 0          |    |    | BUENA VISTA DR SE |    |    | 15-min<br>Total | Rolling<br>One Hour |  |  |  |  |
|                                  | Eastbound      |    |    | Westbound      |    |    | Northbound |    |    | Southbound        |    |    |                 |                     |  |  |  |  |
|                                  | LT             | TH | RT | LT             | TH | RT | LT         | TH | RT | LT                | TH | RT |                 |                     |  |  |  |  |
| 7:00 AM                          | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |
| 7:15 AM                          | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |
| 7:30 AM                          | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |
| 7:45 AM                          | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |
| 8:00 AM                          | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |
| 8:15 AM                          | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |
| 8:30 AM                          | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |
| 8:45 AM                          | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |
| Count Total                      | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |
| Peak Hour                        | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |  |  |  |  |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

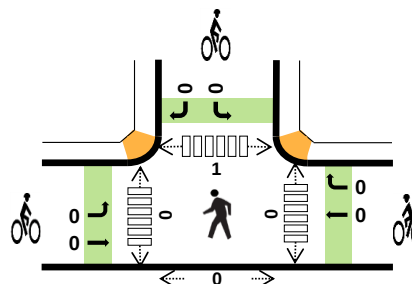
# BUENA VISTA DR SE GIBSON BLVD SE



Peak Hour



Date: Wed, Jun 23, 2021  
Count Period: 4:00 PM to 6:00 PM  
Peak Hour: 4:00 PM to 5:00 PM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 2.0%  | 0.87 |
| WB    | 0.9%  | 0.98 |
| NB    | -     | -    |
| SB    | 0.0%  | 0.71 |
| TOTAL | 1.3%  | 0.95 |

## Two-Hour Count Summaries

| Interval<br>Start |         | GIBSON BLVD SE |    |       |    | GIBSON BLVD SE |    |       |    | 0          |    |    |    | BUENA VISTA DR SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|---------|----------------|----|-------|----|----------------|----|-------|----|------------|----|----|----|-------------------|----|----|----|-----------------|---------------------|
|                   |         | Eastbound      |    |       |    | Westbound      |    |       |    | Northbound |    |    |    | Southbound        |    |    |    |                 |                     |
|                   |         | UT             | LT | TH    | RT | UT             | LT | TH    | RT | UT         | LT | TH | RT | UT                | LT | TH | RT |                 |                     |
|                   | 4:00 PM | 3              | 2  | 348   | 0  | 0              | 0  | 574   | 2  | 0          | 0  | 0  | 0  | 0                 | 1  | 0  | 2  | 932             | 0                   |
|                   | 4:15 PM | 5              | 6  | 289   | 0  | 1              | 0  | 574   | 2  | 0          | 0  | 0  | 0  | 0                 | 1  | 0  | 3  | 881             | 0                   |
|                   | 4:30 PM | 3              | 0  | 268   | 0  | 0              | 0  | 583   | 2  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 4  | 860             | 0                   |
|                   | 4:45 PM | 6              | 5  | 290   | 0  | 0              | 0  | 564   | 1  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 6  | 872             | 3,545               |
|                   | 5:00 PM | 5              | 1  | 247   | 0  | 0              | 0  | 489   | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 1  | 743             | 3,356               |
|                   | 5:15 PM | 2              | 3  | 270   | 0  | 0              | 0  | 409   | 2  | 0          | 0  | 0  | 0  | 0                 | 1  | 0  | 0  | 687             | 3,162               |
|                   | 5:30 PM | 4              | 2  | 257   | 0  | 0              | 0  | 438   | 2  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 1  | 704             | 3,006               |
|                   | 5:45 PM | 8              | 2  | 237   | 0  | 0              | 0  | 435   | 1  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 2  | 685             | 2,819               |
| Count Total       |         | 36             | 21 | 2,206 | 0  | 1              | 0  | 4,066 | 12 | 0          | 0  | 0  | 0  | 0                 | 3  | 0  | 19 | 6,364           | 0                   |
| Peak<br>Hour      | All     | 17             | 13 | 1,195 | 0  | 1              | 0  | 2,295 | 7  | 0          | 0  | 0  | 0  | 0                 | 2  | 0  | 15 | 3,545           | 0                   |
|                   | HV      | 0              | 0  | 24    | 0  | 0              | 0  | 21    | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 45              | 0                   |
|                   | HV%     | 0%             | 0% | 2%    | -  | 0%             | -  | 1%    | 0% | -          | -  | -  | -  | -                 | 0% | -  | 0% | 1%              | 0                   |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 4:00 PM        | 9                    | 4  | 0  | 0  | 13    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:15 PM        | 5                    | 9  | 0  | 0  | 14    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:30 PM        | 5                    | 5  | 0  | 0  | 10    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:45 PM        | 5                    | 3  | 0  | 0  | 8     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 1     | 0     | 1     |
| 5:00 PM        | 4                    | 7  | 0  | 0  | 11    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:15 PM        | 6                    | 8  | 0  | 0  | 14    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:30 PM        | 6                    | 3  | 0  | 0  | 9     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 1     | 0     | 1     |
| 5:45 PM        | 4                    | 4  | 0  | 0  | 8     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| Count Total    | 44                   | 43 | 0  | 0  | 87    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 2     | 0     | 2     |
| Peak Hr        | 24                   | 21 | 0  | 0  | 45    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 1     | 0     | 1     |

**Two-Hour Count Summaries - Heavy Vehicles**

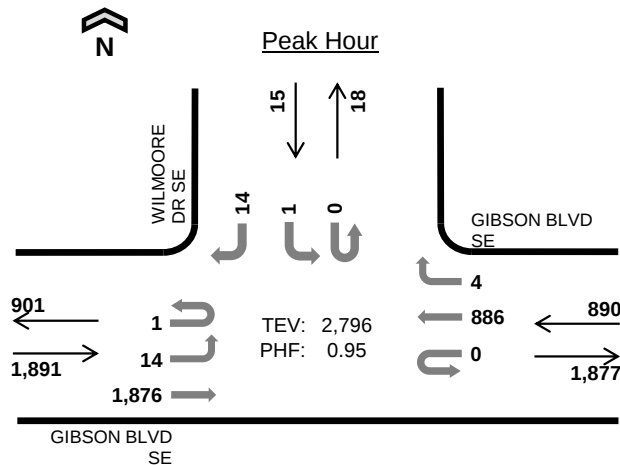
| Interval<br>Start | GIBSON BLVD SE |    |    |    | GIBSON BLVD SE |    |    |    | 0          |    |    |    | BUENA VISTA DR SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----|----------------|----|----|----|------------|----|----|----|-------------------|----|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    |    | Westbound      |    |    |    | Northbound |    |    |    | Southbound        |    |    |    |                 |                     |
|                   | UT             | LT | TH | RT | UT             | LT | TH | RT | UT         | LT | TH | RT | UT                | LT | TH | RT |                 |                     |
| 4:00 PM           | 0              | 0  | 9  | 0  | 0              | 0  | 4  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 13              | 0                   |
| 4:15 PM           | 0              | 0  | 5  | 0  | 0              | 0  | 9  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 14              | 0                   |
| 4:30 PM           | 0              | 0  | 5  | 0  | 0              | 0  | 5  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 10              | 0                   |
| 4:45 PM           | 0              | 0  | 5  | 0  | 0              | 0  | 3  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 8               | 45                  |
| 5:00 PM           | 0              | 0  | 4  | 0  | 0              | 0  | 7  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 11              | 43                  |
| 5:15 PM           | 0              | 0  | 6  | 0  | 0              | 0  | 8  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 14              | 43                  |
| 5:30 PM           | 0              | 0  | 6  | 0  | 0              | 0  | 3  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 9               | 42                  |
| 5:45 PM           | 0              | 0  | 4  | 0  | 0              | 0  | 4  | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 8               | 42                  |
| Count Total       | 0              | 0  | 44 | 0  | 0              | 0  | 43 | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 87              | 0                   |
| Peak Hour         | 0              | 0  | 24 | 0  | 0              | 0  | 21 | 0  | 0          | 0  | 0  | 0  | 0                 | 0  | 0  | 0  | 45              | 0                   |

**Two-Hour Count Summaries - Bikes**

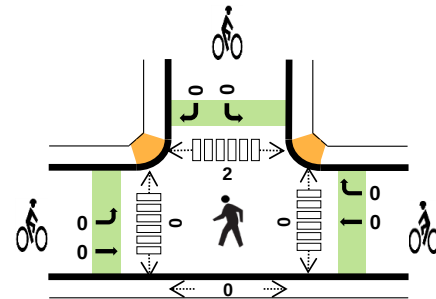
| Interval<br>Start | GIBSON BLVD SE |    |    | GIBSON BLVD SE |    |    | 0          |    |    | BUENA VISTA DR SE |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----------------|----|----|------------|----|----|-------------------|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    | Westbound      |    |    | Northbound |    |    | Southbound        |    |    |                 |                     |
|                   | LT             | TH | RT | LT             | TH | RT | LT         | TH | RT | LT                | TH | RT |                 |                     |
| 4:00 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |
| 4:15 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |
| 4:30 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |
| 4:45 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |
| 5:00 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |
| 5:15 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |
| 5:30 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |
| 5:45 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |
| Count Total       | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |
| Peak Hour         | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0                 | 0  | 0  | 0               | 0                   |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# WILMOORE DR SE GIBSON BLVD SE



Date: Wed, Jun 23, 2021  
Count Period: 7:00 AM to 9:00 AM  
Peak Hour: 7:30 AM to 8:30 AM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 2.9%  | 0.96 |
| WB    | 4.8%  | 0.92 |
| NB    | -     | -    |
| SB    | 6.7%  | 0.75 |
| TOTAL | 3.5%  | 0.95 |

## Two-Hour Count Summaries

| Interval<br>Start |     | GIBSON BLVD SE |    |       |    | GIBSON BLVD SE |    |       |     | 0          |    |    |    | WILMOORE DR SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|-----|----------------|----|-------|----|----------------|----|-------|-----|------------|----|----|----|----------------|----|----|----|-----------------|---------------------|
|                   |     | Eastbound      |    |       |    | Westbound      |    |       |     | Northbound |    |    |    | Southbound     |    |    |    |                 |                     |
|                   |     | UT             | LT | TH    | RT | UT             | LT | TH    | RT  | UT         | LT | TH | RT | UT             | LT | TH | RT |                 |                     |
| 7:00 AM           |     | 0              | 0  | 454   | 0  | 0              | 0  | 143   | 1   | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 2  | 600             | 0                   |
| 7:15 AM           |     | 0              | 4  | 471   | 0  | 0              | 0  | 191   | 0   | 0          | 0  | 0  | 0  | 0              | 1  | 0  | 5  | 672             | 0                   |
| 7:30 AM           |     | 0              | 3  | 450   | 0  | 0              | 0  | 240   | 1   | 0          | 0  | 0  | 0  | 0              | 1  | 0  | 2  | 697             | 0                   |
| 7:45 AM           |     | 0              | 2  | 488   | 0  | 0              | 0  | 238   | 0   | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 5  | 733             | 2,702               |
| 8:00 AM           |     | 0              | 5  | 467   | 0  | 0              | 0  | 204   | 1   | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 3  | 680             | 2,782               |
| 8:15 AM           |     | 1              | 4  | 471   | 0  | 0              | 0  | 204   | 2   | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 4  | 686             | 2,796               |
| 8:30 AM           |     | 0              | 2  | 424   | 0  | 0              | 0  | 199   | 1   | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 5  | 631             | 2,730               |
| 8:45 AM           |     | 0              | 2  | 398   | 0  | 0              | 0  | 199   | 2   | 0          | 0  | 0  | 0  | 0              | 2  | 0  | 2  | 605             | 2,602               |
| Count Total       |     | 1              | 22 | 3,623 | 0  | 0              | 0  | 1,618 | 8   | 0          | 0  | 0  | 0  | 0              | 4  | 0  | 28 | 5,304           | 0                   |
| Peak<br>Hour      | All | 1              | 14 | 1,876 | 0  | 0              | 0  | 886   | 4   | 0          | 0  | 0  | 0  | 0              | 1  | 0  | 14 | 2,796           | 0                   |
|                   | HV  | 0              | 1  | 54    | 0  | 0              | 0  | 42    | 1   | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 1  | 99              | 0                   |
|                   | HV% | 0%             | 7% | 3%    | -  | -              | -  | 5%    | 25% | -          | -  | -  | -  | -              | 0% | -  | 7% | 4%              | 0                   |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 7:00 AM        | 12                   | 4  | 0  | 0  | 16    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:15 AM        | 15                   | 5  | 0  | 1  | 21    | 0        | 0  | 0  | 0  | 0     | 1                          | 0    | 1     | 0     | 2     |
| 7:30 AM        | 12                   | 9  | 0  | 0  | 21    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 1     | 0     | 1     |
| 7:45 AM        | 15                   | 9  | 0  | 0  | 24    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 1     | 0     | 1     |
| 8:00 AM        | 14                   | 10 | 0  | 0  | 24    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:15 AM        | 14                   | 15 | 0  | 1  | 30    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:30 AM        | 14                   | 11 | 0  | 1  | 26    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:45 AM        | 18                   | 9  | 0  | 0  | 27    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| Count Total    | 114                  | 72 | 0  | 3  | 189   | 0        | 0  | 0  | 0  | 0     | 1                          | 0    | 3     | 0     | 4     |
| Peak Hr        | 55                   | 43 | 0  | 1  | 99    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 2     | 0     | 2     |

**Two-Hour Count Summaries - Heavy Vehicles**

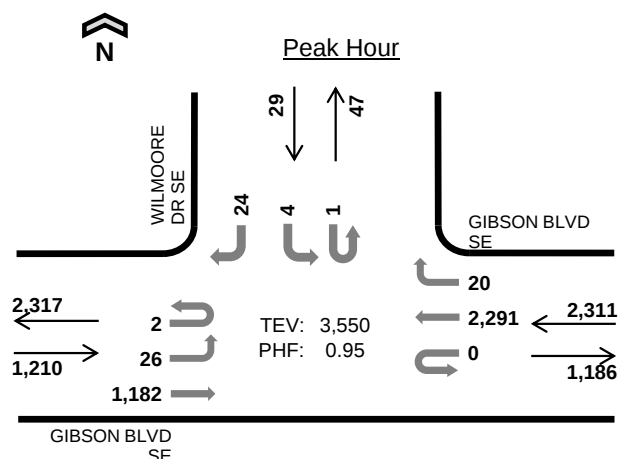
| Interval<br>Start | GIBSON BLVD SE |    |     |    | GIBSON BLVD SE |    |    |    | 0          |    |    |    | WILMOORE DR SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|-----|----|----------------|----|----|----|------------|----|----|----|----------------|----|----|----|-----------------|---------------------|
|                   | Eastbound      |    |     |    | Westbound      |    |    |    | Northbound |    |    |    | Southbound     |    |    |    |                 |                     |
|                   | UT             | LT | TH  | RT | UT             | LT | TH | RT | UT         | LT | TH | RT | UT             | LT | TH | RT |                 |                     |
| 7:00 AM           | 0              | 0  | 12  | 0  | 0              | 0  | 4  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 16              | 0                   |
| 7:15 AM           | 0              | 1  | 14  | 0  | 0              | 0  | 5  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 1  | 21              | 0                   |
| 7:30 AM           | 0              | 0  | 12  | 0  | 0              | 0  | 9  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 21              | 0                   |
| 7:45 AM           | 0              | 0  | 15  | 0  | 0              | 0  | 9  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 24              | 82                  |
| 8:00 AM           | 0              | 0  | 14  | 0  | 0              | 0  | 9  | 1  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 24              | 90                  |
| 8:15 AM           | 0              | 1  | 13  | 0  | 0              | 0  | 15 | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 1  | 30              | 99                  |
| 8:30 AM           | 0              | 0  | 14  | 0  | 0              | 0  | 11 | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 1  | 26              | 104                 |
| 8:45 AM           | 0              | 0  | 18  | 0  | 0              | 0  | 8  | 1  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 27              | 107                 |
| Count Total       | 0              | 2  | 112 | 0  | 0              | 0  | 70 | 2  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 3  | 189             | 0                   |
| Peak Hour         | 0              | 1  | 54  | 0  | 0              | 0  | 42 | 1  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 1  | 99              | 0                   |

**Two-Hour Count Summaries - Bikes**

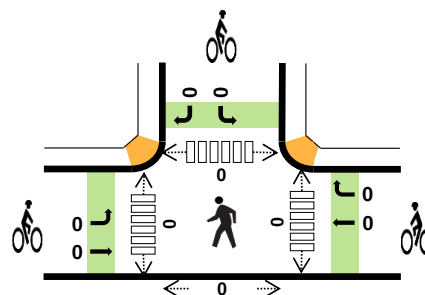
| Interval<br>Start | GIBSON BLVD SE |    |    | GIBSON BLVD SE |    |    | 0          |    |    | WILMOORE DR SE |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----------------|----|----|------------|----|----|----------------|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    | Westbound      |    |    | Northbound |    |    | Southbound     |    |    |                 |                     |
|                   | LT             | TH | RT | LT             | TH | RT | LT         | TH | RT | LT             | TH | RT |                 |                     |
| 7:00 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 7:15 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 7:30 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 7:45 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 8:00 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 8:15 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 8:30 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 8:45 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| Count Total       | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| Peak Hour         | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# WILMOORE DR SE GIBSON BLVD SE



Date: Wed, Jun 23, 2021  
Count Period: 4:00 PM to 6:00 PM  
Peak Hour: 4:00 PM to 5:00 PM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 2.0%  | 0.85 |
| WB    | 0.9%  | 0.98 |
| NB    | -     | -    |
| SB    | 3.4%  | 0.66 |
| TOTAL | 1.3%  | 0.95 |

## Two-Hour Count Summaries

| Interval<br>Start |     | GIBSON BLVD SE |    |       |    | GIBSON BLVD SE |    |       |    | 0          |    |    |    | WILMOORE DR SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|-----|----------------|----|-------|----|----------------|----|-------|----|------------|----|----|----|----------------|----|----|----|-----------------|---------------------|
|                   |     | Eastbound      |    |       |    | Westbound      |    |       |    | Northbound |    |    |    | Southbound     |    |    |    |                 |                     |
|                   |     | UT             | LT | TH    | RT | UT             | LT | TH    | RT | UT         | LT | TH | RT | UT             | LT | TH | RT |                 |                     |
| 4:00 PM           |     | 0              | 5  | 350   | 0  | 0              | 0  | 577   | 3  | 0          | 0  | 0  | 0  | 0              | 1  | 0  | 2  | 938             | 0                   |
| 4:15 PM           |     | 1              | 10 | 280   | 0  | 0              | 0  | 572   | 3  | 0          | 0  | 0  | 0  | 0              | 2  | 0  | 6  | 874             | 0                   |
| 4:30 PM           |     | 1              | 8  | 264   | 0  | 0              | 0  | 583   | 9  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 7  | 872             | 0                   |
| 4:45 PM           |     | 0              | 3  | 288   | 0  | 0              | 0  | 559   | 5  | 0          | 0  | 0  | 0  | 1              | 1  | 0  | 9  | 866             | 3,550               |
| 5:00 PM           |     | 0              | 4  | 242   | 0  | 0              | 0  | 474   | 7  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 7  | 734             | 3,346               |
| 5:15 PM           |     | 0              | 7  | 264   | 0  | 0              | 0  | 394   | 5  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 8  | 678             | 3,150               |
| 5:30 PM           |     | 0              | 9  | 241   | 0  | 0              | 0  | 432   | 6  | 0          | 0  | 0  | 0  | 0              | 1  | 0  | 8  | 697             | 2,975               |
| 5:45 PM           |     | 0              | 4  | 233   | 0  | 0              | 0  | 424   | 5  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 9  | 675             | 2,784               |
| Count Total       |     | 2              | 50 | 2,162 | 0  | 0              | 0  | 4,015 | 43 | 0          | 0  | 0  | 0  | 1              | 5  | 0  | 56 | 6,334           | 0                   |
| Peak<br>Hour      | All | 2              | 26 | 1,182 | 0  | 0              | 0  | 2,291 | 20 | 0          | 0  | 0  | 0  | 1              | 4  | 0  | 24 | 3,550           | 0                   |
|                   | HV  | 0              | 0  | 24    | 0  | 0              | 0  | 20    | 1  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 1  | 46              | 0                   |
|                   | HV% | 0%             | 0% | 2%    | -  | -              | -  | 1%    | 5% | -          | -  | -  | -  | 0%             | 0% | -  | 4% | 1%              | 0                   |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 4:00 PM        | 8                    | 5  | 0  | 0  | 13    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:15 PM        | 6                    | 7  | 0  | 1  | 14    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:30 PM        | 5                    | 5  | 0  | 0  | 10    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:45 PM        | 5                    | 4  | 0  | 0  | 9     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:00 PM        | 4                    | 6  | 0  | 1  | 11    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:15 PM        | 6                    | 8  | 0  | 0  | 14    | 0        | 1  | 0  | 0  | 1     | 0                          | 0    | 0     | 0     | 0     |
| 5:30 PM        | 6                    | 3  | 0  | 0  | 9     | 0        | 1  | 0  | 0  | 1     | 0                          | 0    | 1     | 0     | 1     |
| 5:45 PM        | 4                    | 4  | 0  | 0  | 8     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| Count Total    | 44                   | 42 | 0  | 2  | 88    | 0        | 2  | 0  | 0  | 2     | 0                          | 0    | 1     | 0     | 1     |
| Peak Hr        | 24                   | 21 | 0  | 1  | 46    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |

**Two-Hour Count Summaries - Heavy Vehicles**

| Interval<br>Start | GIBSON BLVD SE |    |    |    | GIBSON BLVD SE |    |    |    | 0          |    |    |    | WILMOORE DR SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----|----------------|----|----|----|------------|----|----|----|----------------|----|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    |    | Westbound      |    |    |    | Northbound |    |    |    | Southbound     |    |    |    |                 |                     |
|                   | UT             | LT | TH | RT | UT             | LT | TH | RT | UT         | LT | TH | RT | UT             | LT | TH | RT |                 |                     |
| 4:00 PM           | 0              | 0  | 8  | 0  | 0              | 0  | 5  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 13              | 0                   |
| 4:15 PM           | 0              | 0  | 6  | 0  | 0              | 0  | 6  | 1  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 1  | 14              | 0                   |
| 4:30 PM           | 0              | 0  | 5  | 0  | 0              | 0  | 5  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 10              | 0                   |
| 4:45 PM           | 0              | 0  | 5  | 0  | 0              | 0  | 4  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 9               | 46                  |
| 5:00 PM           | 0              | 0  | 4  | 0  | 0              | 0  | 6  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 1  | 11              | 44                  |
| 5:15 PM           | 0              | 0  | 6  | 0  | 0              | 0  | 8  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 14              | 44                  |
| 5:30 PM           | 0              | 0  | 6  | 0  | 0              | 0  | 3  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 9               | 43                  |
| 5:45 PM           | 0              | 0  | 4  | 0  | 0              | 0  | 4  | 0  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 0  | 8               | 42                  |
| Count Total       | 0              | 0  | 44 | 0  | 0              | 0  | 41 | 1  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 2  | 88              | 0                   |
| Peak Hour         | 0              | 0  | 24 | 0  | 0              | 0  | 20 | 1  | 0          | 0  | 0  | 0  | 0              | 0  | 0  | 1  | 46              | 0                   |

**Two-Hour Count Summaries - Bikes**

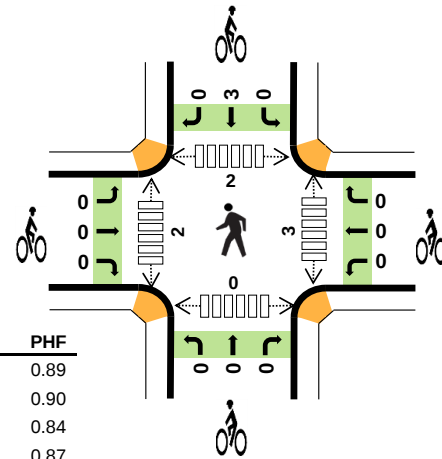
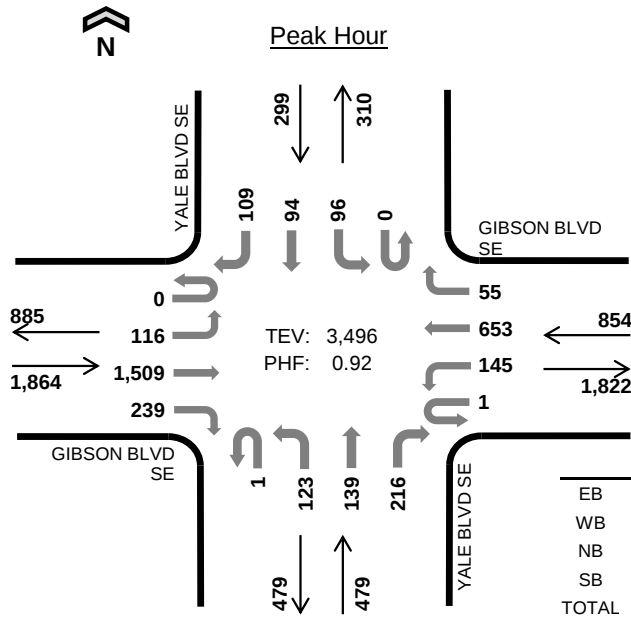
| Interval<br>Start | GIBSON BLVD SE |    |    | GIBSON BLVD SE |    |    | 0          |    |    | WILMOORE DR SE |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----------------|----|----|------------|----|----|----------------|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    | Westbound      |    |    | Northbound |    |    | Southbound     |    |    |                 |                     |
|                   | LT             | TH | RT | LT             | TH | RT | LT         | TH | RT | LT             | TH | RT |                 |                     |
| 4:00 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 4:15 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 4:30 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 4:45 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 5:00 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |
| 5:15 PM           | 0              | 0  | 0  | 0              | 0  | 1  | 0          | 0  | 0  | 0              | 0  | 0  | 1               | 1                   |
| 5:30 PM           | 0              | 0  | 0  | 0              | 0  | 1  | 0          | 0  | 0  | 0              | 0  | 0  | 1               | 2                   |
| 5:45 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 2                   |
| Count Total       | 0              | 0  | 0  | 0              | 0  | 2  | 0          | 0  | 0  | 0              | 0  | 0  | 2               | 0                   |
| Peak Hour         | 0              | 0  | 0  | 0              | 0  | 0  | 0          | 0  | 0  | 0              | 0  | 0  | 0               | 0                   |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# YALE BLVD SE GIBSON BLVD SE



Date: Wed, Jun 23, 2021  
Count Period: 7:00 AM to 9:00 AM  
Peak Hour: 7:30 AM to 8:30 AM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 3.1%  | 0.89 |
| WB    | 3.6%  | 0.90 |
| NB    | 3.1%  | 0.84 |
| SB    | 4.3%  | 0.87 |
| TOTAL | 3.3%  | 0.92 |

## Two-Hour Count Summaries

| Interval Start |     | GIBSON BLVD SE |     |       |     | GIBSON BLVD SE |     |       |     | YALE BLVD SE |     |     |     | YALE BLVD SE |     |     |     | 15-min Total | Rolling One Hour |
|----------------|-----|----------------|-----|-------|-----|----------------|-----|-------|-----|--------------|-----|-----|-----|--------------|-----|-----|-----|--------------|------------------|
|                |     | Eastbound      |     |       |     | Westbound      |     |       |     | Northbound   |     |     |     | Southbound   |     |     |     |              |                  |
|                |     | UT             | LT  | TH    | RT  | UT             | LT  | TH    | RT  | UT           | LT  | TH  | RT  | UT           | LT  | TH  | RT  |              |                  |
| 7:00 AM        |     | 0              | 25  | 364   | 42  | 0              | 31  | 109   | 12  | 0            | 25  | 16  | 44  | 0            | 22  | 10  | 19  | 719          | 0                |
| 7:15 AM        |     | 0              | 22  | 436   | 35  | 0              | 19  | 141   | 14  | 0            | 23  | 6   | 51  | 0            | 17  | 14  | 24  | 802          | 0                |
| 7:30 AM        |     | 0              | 16  | 343   | 48  | 0              | 35  | 183   | 9   | 0            | 32  | 15  | 51  | 0            | 27  | 22  | 27  | 808          | 0                |
| 7:45 AM        |     | 0              | 26  | 426   | 74  | 1              | 36  | 183   | 16  | 0            | 28  | 29  | 47  | 0            | 29  | 35  | 22  | 952          | 3,281            |
| 8:00 AM        |     | 0              | 37  | 363   | 59  | 0              | 34  | 157   | 15  | 0            | 28  | 40  | 67  | 0            | 13  | 23  | 33  | 869          | 3,431            |
| 8:15 AM        |     | 0              | 37  | 377   | 58  | 0              | 40  | 130   | 15  | 1            | 35  | 55  | 51  | 0            | 27  | 14  | 27  | 867          | 3,496            |
| 8:30 AM        |     | 0              | 23  | 342   | 49  | 0              | 37  | 144   | 13  | 0            | 33  | 42  | 44  | 0            | 14  | 22  | 23  | 786          | 3,474            |
| 8:45 AM        |     | 0              | 30  | 325   | 64  | 0              | 35  | 152   | 11  | 0            | 32  | 45  | 61  | 0            | 9   | 22  | 18  | 804          | 3,326            |
| Count Total    |     | 0              | 216 | 2,976 | 429 | 1              | 267 | 1,199 | 105 | 1            | 236 | 248 | 416 | 0            | 158 | 162 | 193 | 6,607        | 0                |
| Peak Hour      | All | 0              | 116 | 1,509 | 239 | 1              | 145 | 653   | 55  | 1            | 123 | 139 | 216 | 0            | 96  | 94  | 109 | 3,496        | 0                |
|                | HV  | 0              | 3   | 51    | 4   | 0              | 1   | 28    | 2   | 0            | 6   | 4   | 5   | 0            | 0   | 2   | 11  | 117          | 0                |
|                | HV% | -              | 3%  | 3%    | 2%  | 0%             | 1%  | 4%    | 4%  | 0%           | 5%  | 3%  | 2%  | -            | 0%  | 2%  | 10% | 3%           | 0                |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 7:00 AM        | 11                   | 5  | 3  | 1  | 20    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:15 AM        | 14                   | 4  | 1  | 4  | 23    | 0        | 0  | 0  | 0  | 0     | 2                          | 1    | 0     | 1     | 4     |
| 7:30 AM        | 12                   | 2  | 4  | 6  | 24    | 0        | 0  | 0  | 0  | 0     | 1                          | 0    | 0     | 0     | 1     |
| 7:45 AM        | 16                   | 8  | 1  | 3  | 28    | 0        | 0  | 0  | 1  | 1     | 2                          | 0    | 2     | 0     | 4     |
| 8:00 AM        | 11                   | 12 | 4  | 1  | 28    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:15 AM        | 19                   | 9  | 6  | 3  | 37    | 0        | 0  | 0  | 2  | 2     | 0                          | 2    | 0     | 0     | 2     |
| 8:30 AM        | 14                   | 10 | 3  | 2  | 29    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:45 AM        | 15                   | 10 | 4  | 1  | 30    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| Count Total    | 112                  | 60 | 26 | 21 | 219   | 0        | 0  | 0  | 3  | 3     | 5                          | 3    | 2     | 1     | 11    |
| Peak Hour      | 58                   | 31 | 15 | 13 | 117   | 0        | 0  | 0  | 3  | 3     | 3                          | 2    | 2     | 0     | 7     |

**Two-Hour Count Summaries - Heavy Vehicles**

| Interval<br>Start | GIBSON BLVD SE |    |    |    | GIBSON BLVD SE |    |    |    | YALE BLVD SE |    |    |    | YALE BLVD SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----|----------------|----|----|----|--------------|----|----|----|--------------|----|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    |    | Westbound      |    |    |    | Northbound   |    |    |    | Southbound   |    |    |    |                 |                     |
|                   | UT             | LT | TH | RT | UT             | LT | TH | RT | UT           | LT | TH | RT | UT           | LT | TH | RT |                 |                     |
| 7:00 AM           | 0              | 1  | 10 | 0  | 0              | 1  | 3  | 1  | 0            | 1  | 2  | 0  | 0            | 0  | 1  | 0  | 20              | 0                   |
| 7:15 AM           | 0              | 2  | 12 | 0  | 0              | 0  | 3  | 1  | 0            | 0  | 0  | 1  | 0            | 1  | 1  | 2  | 23              | 0                   |
| 7:30 AM           | 0              | 0  | 12 | 0  | 0              | 0  | 2  | 0  | 0            | 1  | 1  | 2  | 0            | 0  | 0  | 6  | 24              | 0                   |
| 7:45 AM           | 0              | 1  | 14 | 1  | 0              | 0  | 7  | 1  | 0            | 0  | 0  | 1  | 0            | 0  | 1  | 2  | 28              | 95                  |
| 8:00 AM           | 0              | 1  | 10 | 0  | 0              | 1  | 10 | 1  | 0            | 1  | 2  | 1  | 0            | 0  | 0  | 1  | 28              | 103                 |
| 8:15 AM           | 0              | 1  | 15 | 3  | 0              | 0  | 9  | 0  | 0            | 4  | 1  | 1  | 0            | 0  | 1  | 2  | 37              | 117                 |
| 8:30 AM           | 0              | 0  | 12 | 2  | 0              | 0  | 9  | 1  | 0            | 0  | 1  | 2  | 0            | 0  | 1  | 1  | 29              | 122                 |
| 8:45 AM           | 0              | 2  | 11 | 2  | 0              | 2  | 8  | 0  | 0            | 0  | 2  | 2  | 0            | 0  | 1  | 0  | 30              | 124                 |
| Count Total       | 0              | 8  | 96 | 8  | 0              | 4  | 51 | 5  | 0            | 7  | 9  | 10 | 0            | 1  | 6  | 14 | 219             | 0                   |
| Peak Hour         | 0              | 3  | 51 | 4  | 0              | 1  | 28 | 2  | 0            | 6  | 4  | 5  | 0            | 0  | 2  | 11 | 117             | 0                   |

**Two-Hour Count Summaries - Bikes**

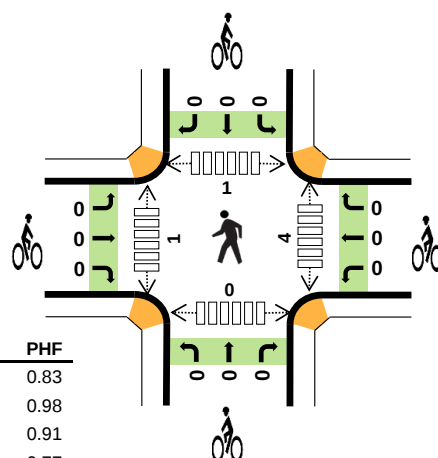
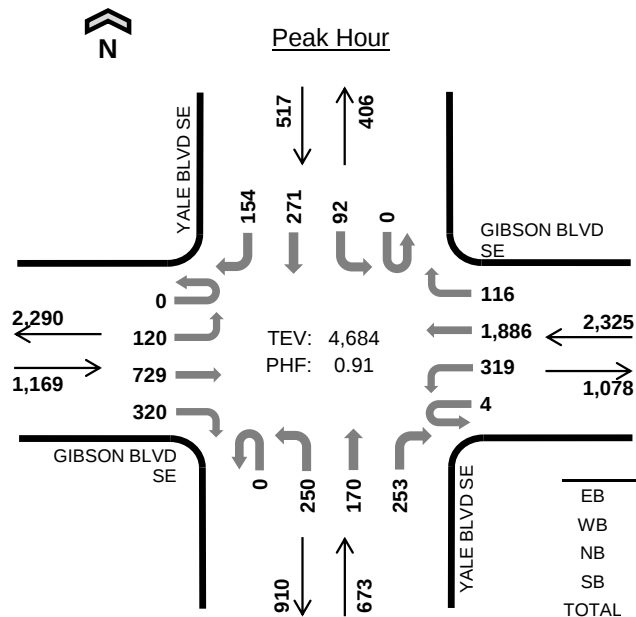
| Interval<br>Start | GIBSON BLVD SE |    |    | GIBSON BLVD SE |    |    | YALE BLVD SE |    |    | YALE BLVD SE |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----------------|----|----|--------------|----|----|--------------|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    | Westbound      |    |    | Northbound   |    |    | Southbound   |    |    |                 |                     |
|                   | LT             | TH | RT | LT             | TH | RT | LT           | TH | RT | LT           | TH | RT |                 |                     |
| 7:00 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 7:15 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 7:30 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 7:45 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 1  | 0  | 1               | 1                   |
| 8:00 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 1                   |
| 8:15 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 2  | 0  | 2               | 3                   |
| 8:30 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 3                   |
| 8:45 AM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 2                   |
| Count Total       | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 3  | 0  | 3               | 0                   |
| Peak Hour         | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 3  | 0  | 3               | 0                   |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# YALE BLVD SE GIBSON BLVD SE



Date: Wed, Jun 23, 2021  
Count Period: 4:00 PM to 6:00 PM  
Peak Hour: 4:00 PM to 5:00 PM



## Two-Hour Count Summaries

| Interval Start |     | GIBSON BLVD SE |     |       |     | GIBSON BLVD SE |     |       |     | YALE BLVD SE |     |     |     | YALE BLVD SE |     |     |     | 15-min Total | Rolling One Hour |
|----------------|-----|----------------|-----|-------|-----|----------------|-----|-------|-----|--------------|-----|-----|-----|--------------|-----|-----|-----|--------------|------------------|
|                |     | Eastbound      |     |       |     | Westbound      |     |       |     | Northbound   |     |     |     | Southbound   |     |     |     |              |                  |
|                |     | UT             | LT  | TH    | RT  | UT             | LT  | TH    | RT  | UT           | LT  | TH  | RT  | UT           | LT  | TH  | RT  |              |                  |
| 4:00 PM        |     | 0              | 25  | 168   | 160 | 1              | 87  | 469   | 36  | 0            | 73  | 41  | 60  | 0            | 22  | 111 | 34  | 1,287        | 0                |
| 4:15 PM        |     | 0              | 32  | 173   | 68  | 0              | 86  | 470   | 33  | 0            | 59  | 42  | 60  | 0            | 22  | 79  | 39  | 1,163        | 0                |
| 4:30 PM        |     | 0              | 30  | 179   | 49  | 1              | 71  | 479   | 32  | 0            | 68  | 49  | 68  | 0            | 29  | 44  | 45  | 1,144        | 0                |
| 4:45 PM        |     | 0              | 33  | 209   | 43  | 2              | 75  | 468   | 15  | 0            | 50  | 38  | 65  | 0            | 19  | 37  | 36  | 1,090        | 4,684            |
| 5:00 PM        |     | 0              | 37  | 168   | 33  | 0              | 64  | 395   | 32  | 0            | 62  | 52  | 77  | 1            | 17  | 24  | 30  | 992          | 4,389            |
| 5:15 PM        |     | 0              | 37  | 193   | 34  | 0              | 48  | 320   | 24  | 1            | 44  | 39  | 65  | 0            | 15  | 39  | 42  | 901          | 4,127            |
| 5:30 PM        |     | 1              | 35  | 165   | 42  | 0              | 43  | 364   | 21  | 0            | 55  | 31  | 50  | 0            | 11  | 23  | 30  | 871          | 3,854            |
| 5:45 PM        |     | 2              | 41  | 176   | 30  | 1              | 38  | 339   | 26  | 0            | 52  | 35  | 41  | 0            | 15  | 32  | 35  | 863          | 3,627            |
| Count Total    |     | 3              | 270 | 1,431 | 459 | 5              | 512 | 3,304 | 219 | 1            | 463 | 327 | 486 | 1            | 150 | 389 | 291 | 8,311        | 0                |
| Peak Hour      | All | 0              | 120 | 729   | 320 | 4              | 319 | 1,886 | 116 | 0            | 250 | 170 | 253 | 0            | 92  | 271 | 154 | 4,684        | 0                |
|                | HV  | 0              | 4   | 12    | 8   | 0              | 7   | 18    | 3   | 0            | 0   | 6   | 6   | 0            | 5   | 14  | 3   | 86           | 0                |
|                | HV% | -              | 3%  | 2%    | 3%  | 0%             | 2%  | 1%    | 3%  | -            | 0%  | 4%  | 2%  | -            | 5%  | 5%  | 2%  | 2%           | 0                |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 4:00 PM        | 11                   | 8  | 3  | 5  | 27    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 1     | 0     | 1     |
| 4:15 PM        | 4                    | 6  | 5  | 10 | 25    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:30 PM        | 3                    | 10 | 2  | 5  | 20    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:45 PM        | 6                    | 4  | 2  | 2  | 14    | 0        | 0  | 0  | 0  | 0     | 4                          | 1    | 0     | 0     | 5     |
| 5:00 PM        | 3                    | 4  | 3  | 1  | 11    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:15 PM        | 6                    | 6  | 0  | 3  | 15    | 0        | 1  | 0  | 0  | 1     | 0                          | 1    | 0     | 0     | 1     |
| 5:30 PM        | 7                    | 5  | 3  | 0  | 15    | 0        | 1  | 0  | 0  | 1     | 0                          | 3    | 1     | 0     | 4     |
| 5:45 PM        | 4                    | 4  | 0  | 1  | 9     | 0        | 0  | 0  | 0  | 0     | 5                          | 0    | 0     | 0     | 5     |
| Count Total    | 44                   | 47 | 18 | 27 | 136   | 0        | 2  | 0  | 0  | 2     | 9                          | 5    | 2     | 0     | 16    |
| Peak Hour      | 24                   | 28 | 12 | 22 | 86    | 0        | 0  | 0  | 0  | 0     | 4                          | 1    | 1     | 0     | 6     |

**Two-Hour Count Summaries - Heavy Vehicles**

| Interval<br>Start | GIBSON BLVD SE |    |    |    | GIBSON BLVD SE |    |    |    | YALE BLVD SE |    |    |    | YALE BLVD SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----|----------------|----|----|----|--------------|----|----|----|--------------|----|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    |    | Westbound      |    |    |    | Northbound   |    |    |    | Southbound   |    |    |    |                 |                     |
|                   | UT             | LT | TH | RT | UT             | LT | TH | RT | UT           | LT | TH | RT | UT           | LT | TH | RT |                 |                     |
| 4:00 PM           | 0              | 1  | 2  | 8  | 0              | 2  | 6  | 0  | 0            | 0  | 1  | 2  | 0            | 0  | 5  | 0  | 27              | 0                   |
| 4:15 PM           | 0              | 1  | 3  | 0  | 0              | 1  | 5  | 0  | 0            | 0  | 3  | 2  | 0            | 3  | 6  | 1  | 25              | 0                   |
| 4:30 PM           | 0              | 0  | 3  | 0  | 0              | 3  | 4  | 3  | 0            | 0  | 2  | 0  | 0            | 2  | 1  | 2  | 20              | 0                   |
| 4:45 PM           | 0              | 2  | 4  | 0  | 0              | 1  | 3  | 0  | 0            | 0  | 0  | 2  | 0            | 0  | 2  | 0  | 14              | 86                  |
| 5:00 PM           | 0              | 0  | 3  | 0  | 0              | 0  | 3  | 1  | 0            | 2  | 1  | 0  | 0            | 0  | 0  | 1  | 11              | 70                  |
| 5:15 PM           | 0              | 2  | 3  | 1  | 0              | 0  | 6  | 0  | 0            | 0  | 0  | 0  | 0            | 0  | 1  | 2  | 15              | 60                  |
| 5:30 PM           | 0              | 2  | 2  | 3  | 0              | 0  | 2  | 3  | 0            | 1  | 1  | 1  | 0            | 0  | 0  | 0  | 15              | 55                  |
| 5:45 PM           | 0              | 2  | 2  | 0  | 0              | 0  | 4  | 0  | 0            | 0  | 0  | 0  | 0            | 0  | 1  | 0  | 9               | 50                  |
| Count Total       | 0              | 10 | 22 | 12 | 0              | 7  | 33 | 7  | 0            | 3  | 8  | 7  | 0            | 5  | 16 | 6  | 136             | 0                   |
| Peak Hour         | 0              | 4  | 12 | 8  | 0              | 7  | 18 | 3  | 0            | 0  | 6  | 6  | 0            | 5  | 14 | 3  | 86              | 0                   |

**Two-Hour Count Summaries - Bikes**

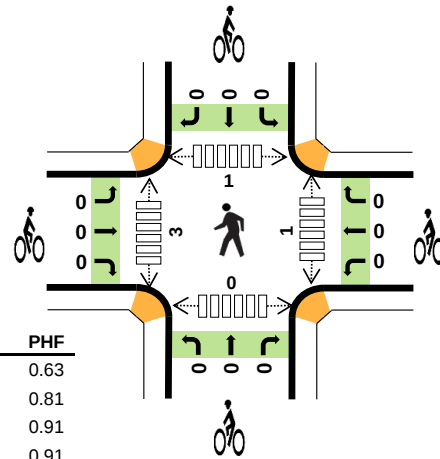
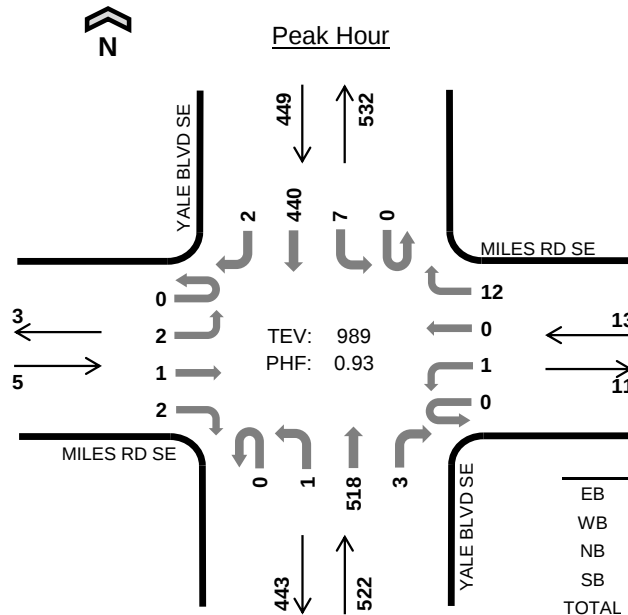
| Interval<br>Start | GIBSON BLVD SE |    |    | GIBSON BLVD SE |    |    | YALE BLVD SE |    |    | YALE BLVD SE |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|----------------|----|----|----------------|----|----|--------------|----|----|--------------|----|----|-----------------|---------------------|
|                   | Eastbound      |    |    | Westbound      |    |    | Northbound   |    |    | Southbound   |    |    |                 |                     |
|                   | LT             | TH | RT | LT             | TH | RT | LT           | TH | RT | LT           | TH | RT |                 |                     |
| 4:00 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 4:15 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 4:30 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 4:45 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 5:00 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 5:15 PM           | 0              | 0  | 0  | 0              | 1  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 1               | 1                   |
| 5:30 PM           | 0              | 0  | 0  | 0              | 1  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 1               | 2                   |
| 5:45 PM           | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 2                   |
| Count Total       | 0              | 0  | 0  | 0              | 2  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 2               | 0                   |
| Peak Hour         | 0              | 0  | 0  | 0              | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# YALE BLVD SE MILES RD SE



Date: Wed, Jun 23, 2021  
Count Period: 7:00 AM to 9:00 AM  
Peak Hour: 8:00 AM to 9:00 AM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 0.0%  | 0.63 |
| WB    | 0.0%  | 0.81 |
| NB    | 3.3%  | 0.91 |
| SB    | 2.9%  | 0.91 |
| TOTAL | 3.0%  | 0.93 |

## Two-Hour Count Summaries

| Interval Start |     | MILES RD SE |    |    |    | MILES RD SE |    |    |    | YALE BLVD SE |    |     |    | YALE BLVD SE |     |     |    | 15-min Total | Rolling One Hour |
|----------------|-----|-------------|----|----|----|-------------|----|----|----|--------------|----|-----|----|--------------|-----|-----|----|--------------|------------------|
|                |     | Eastbound   |    |    |    | Westbound   |    |    |    | Northbound   |    |     |    | Southbound   |     |     |    |              |                  |
|                |     | UT          | LT | TH | RT | UT          | LT | TH | RT | UT           | LT | TH  | RT | UT           | LT  | TH  | RT |              |                  |
| 7:00 AM        |     | 0           | 0  | 0  | 1  | 0           | 0  | 0  | 2  | 0            | 0  | 80  | 0  | 0            | 1   | 77  | 0  | 161          | 0                |
| 7:15 AM        |     | 0           | 3  | 1  | 2  | 0           | 1  | 0  | 0  | 0            | 0  | 81  | 0  | 1            | 1   | 70  | 1  | 161          | 0                |
| 7:30 AM        |     | 0           | 1  | 0  | 0  | 0           | 0  | 0  | 1  | 0            | 0  | 95  | 0  | 0            | 3   | 98  | 2  | 200          | 0                |
| 7:45 AM        |     | 0           | 0  | 0  | 2  | 0           | 1  | 0  | 2  | 0            | 0  | 102 | 0  | 0            | 3   | 142 | 3  | 255          | 777              |
| 8:00 AM        |     | 0           | 1  | 0  | 0  | 0           | 0  | 0  | 2  | 0            | 0  | 130 | 1  | 0            | 1   | 113 | 0  | 248          | 864              |
| 8:15 AM        |     | 0           | 0  | 0  | 0  | 0           | 1  | 0  | 2  | 0            | 0  | 143 | 0  | 0            | 1   | 110 | 0  | 257          | 960              |
| 8:30 AM        |     | 0           | 0  | 1  | 1  | 0           | 0  | 0  | 4  | 0            | 1  | 109 | 1  | 0            | 0   | 100 | 1  | 218          | 978              |
| 8:45 AM        |     | 0           | 1  | 0  | 1  | 0           | 0  | 0  | 4  | 0            | 0  | 136 | 1  | 0            | 5   | 117 | 1  | 266          | 989              |
| Count Total    |     | 0           | 6  | 2  | 7  | 0           | 3  | 0  | 17 | 0            | 1  | 876 | 3  | 1            | 15  | 827 | 8  | 1,766        | 0                |
| Peak Hour      | All | 0           | 2  | 1  | 2  | 0           | 1  | 0  | 12 | 0            | 1  | 518 | 3  | 0            | 7   | 440 | 2  | 989          | 0                |
|                | HV  | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 17  | 0  | 0            | 1   | 12  | 0  | 30           | 0                |
|                | HV% | -           | 0% | 0% | 0% | -           | 0% | -  | 0% | -            | 0% | 3%  | 0% | -            | 14% | 3%  | 0% | 3%           | 0                |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 7:00 AM        | 0                    | 0  | 3  | 1  | 4     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:15 AM        | 1                    | 0  | 0  | 2  | 3     | 0        | 0  | 0  | 0  | 0     | 1                          | 2    | 0     | 0     | 3     |
| 7:30 AM        | 0                    | 0  | 3  | 0  | 3     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 7:45 AM        | 0                    | 0  | 2  | 2  | 4     | 0        | 0  | 0  | 1  | 1     | 2                          | 0    | 0     | 0     | 2     |
| 8:00 AM        | 0                    | 0  | 3  | 2  | 5     | 0        | 0  | 0  | 0  | 0     | 0                          | 1    | 1     | 0     | 2     |
| 8:15 AM        | 0                    | 0  | 6  | 4  | 10    | 0        | 0  | 0  | 0  | 0     | 1                          | 2    | 0     | 0     | 3     |
| 8:30 AM        | 0                    | 0  | 2  | 3  | 5     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 8:45 AM        | 0                    | 0  | 6  | 4  | 10    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| Count Total    | 1                    | 0  | 25 | 18 | 44    | 0        | 0  | 0  | 1  | 1     | 4                          | 5    | 1     | 0     | 10    |
| Peak Hour      | 0                    | 0  | 17 | 13 | 30    | 0        | 0  | 0  | 0  | 0     | 1                          | 3    | 1     | 0     | 5     |

**Two-Hour Count Summaries - Heavy Vehicles**

| Interval<br>Start | MILES RD SE |    |    |    | MILES RD SE |    |    |    | YALE BLVD SE |    |    |    | YALE BLVD SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|-------------|----|----|----|-------------|----|----|----|--------------|----|----|----|--------------|----|----|----|-----------------|---------------------|
|                   | Eastbound   |    |    |    | Westbound   |    |    |    | Northbound   |    |    |    | Southbound   |    |    |    |                 |                     |
|                   | UT          | LT | TH | RT | UT          | LT | TH | RT | UT           | LT | TH | RT | UT           | LT | TH | RT |                 |                     |
| 7:00 AM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 3  | 0  | 0            | 0  | 1  | 0  | 4               | 0                   |
| 7:15 AM           | 0           | 1  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 0            | 0  | 2  | 0  | 3               | 0                   |
| 7:30 AM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 3  | 0  | 0            | 0  | 0  | 0  | 3               | 0                   |
| 7:45 AM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 2  | 0  | 0            | 0  | 2  | 0  | 4               | 14                  |
| 8:00 AM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 3  | 0  | 0            | 0  | 2  | 0  | 5               | 15                  |
| 8:15 AM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 6  | 0  | 0            | 0  | 4  | 0  | 10              | 22                  |
| 8:30 AM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 2  | 0  | 0            | 0  | 3  | 0  | 5               | 24                  |
| 8:45 AM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 6  | 0  | 0            | 1  | 3  | 0  | 10              | 30                  |
| Count Total       | 0           | 1  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 25 | 0  | 0            | 1  | 17 | 0  | 44              | 0                   |
| Peak Hour         | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 17 | 0  | 0            | 1  | 12 | 0  | 30              | 0                   |

**Two-Hour Count Summaries - Bikes**

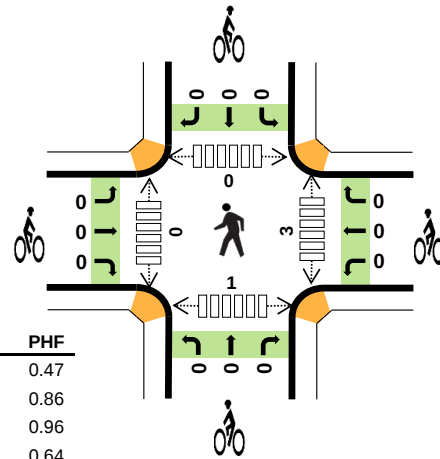
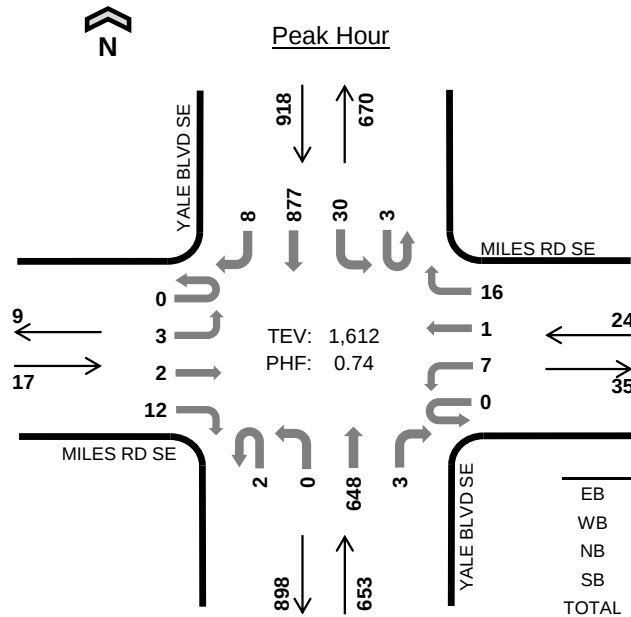
| Interval<br>Start | MILES RD SE |    |    | MILES RD SE |    |    | YALE BLVD SE |    |    | YALE BLVD SE |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|-------------|----|----|-------------|----|----|--------------|----|----|--------------|----|----|-----------------|---------------------|
|                   | Eastbound   |    |    | Westbound   |    |    | Northbound   |    |    | Southbound   |    |    |                 |                     |
|                   | LT          | TH | RT | LT          | TH | RT | LT           | TH | RT | LT           | TH | RT |                 |                     |
| 7:00 AM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 7:15 AM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 7:30 AM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 7:45 AM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 1  | 0  | 1               | 1                   |
| 8:00 AM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 1                   |
| 8:15 AM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 1                   |
| 8:30 AM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 1                   |
| 8:45 AM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| Count Total       | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 1  | 0  | 1               | 0                   |
| Peak Hour         | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# YALE BLVD SE MILES RD SE



Date: Wed, Jun 23, 2021  
Count Period: 4:00 PM to 6:00 PM  
Peak Hour: 4:00 PM to 5:00 PM



|       | HV %: | PHF  |
|-------|-------|------|
| EB    | 5.9%  | 0.47 |
| WB    | 0.0%  | 0.86 |
| NB    | 1.8%  | 0.96 |
| SB    | 3.2%  | 0.64 |
| TOTAL | 2.6%  | 0.74 |

## Two-Hour Count Summaries

| Interval Start |     | MILES RD SE |    |    |    | MILES RD SE |    |    |    | YALE BLVD SE |    |       |    | YALE BLVD SE |    |       |    | 15-min Total | Rolling One Hour |
|----------------|-----|-------------|----|----|----|-------------|----|----|----|--------------|----|-------|----|--------------|----|-------|----|--------------|------------------|
|                |     | Eastbound   |    |    |    | Westbound   |    |    |    | Northbound   |    |       |    | Southbound   |    |       |    |              |                  |
|                |     | UT          | LT | TH | RT | UT          | LT | TH | RT | UT           | LT | TH    | RT | UT           | LT | TH    | RT |              |                  |
| 4:00 PM        |     | 0           | 0  | 2  | 7  | 0           | 2  | 0  | 5  | 0            | 0  | 166   | 2  | 0            | 9  | 349   | 1  | 543          | 0                |
| 4:15 PM        |     | 0           | 1  | 0  | 2  | 0           | 1  | 1  | 2  | 2            | 0  | 164   | 0  | 1            | 8  | 224   | 6  | 412          | 0                |
| 4:30 PM        |     | 0           | 2  | 0  | 2  | 0           | 2  | 0  | 4  | 0            | 0  | 170   | 0  | 1            | 6  | 156   | 1  | 344          | 0                |
| 4:45 PM        |     | 0           | 0  | 0  | 1  | 0           | 2  | 0  | 5  | 0            | 0  | 148   | 1  | 1            | 7  | 148   | 0  | 313          | 1,612            |
| 5:00 PM        |     | 0           | 1  | 0  | 0  | 0           | 1  | 0  | 5  | 0            | 0  | 182   | 1  | 1            | 4  | 115   | 2  | 312          | 1,381            |
| 5:15 PM        |     | 0           | 2  | 0  | 0  | 0           | 0  | 0  | 4  | 0            | 0  | 144   | 1  | 0            | 3  | 114   | 2  | 270          | 1,239            |
| 5:30 PM        |     | 0           | 1  | 0  | 0  | 0           | 0  | 0  | 5  | 0            | 0  | 130   | 0  | 0            | 8  | 101   | 3  | 248          | 1,143            |
| 5:45 PM        |     | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 7  | 0            | 1  | 133   | 1  | 0            | 7  | 95    | 0  | 244          | 1,074            |
| Count Total    |     | 0           | 7  | 2  | 12 | 0           | 8  | 1  | 37 | 2            | 1  | 1,237 | 6  | 4            | 52 | 1,302 | 15 | 2,686        | 0                |
| Peak Hour      | All | 0           | 3  | 2  | 12 | 0           | 7  | 1  | 16 | 2            | 0  | 648   | 3  | 3            | 30 | 877   | 8  | 1,612        | 0                |
|                | HV  | 0           | 0  | 0  | 1  | 0           | 0  | 0  | 0  | 0            | 0  | 12    | 0  | 0            | 0  | 29    | 0  | 42           | 0                |
|                | HV% | -           | 0% | 0% | 8% | -           | 0% | 0% | 0% | 0%           | -  | 2%    | 0% | 0%           | 0% | 3%    | 0% | 3%           | 0                |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals |    |    |    |       | Bicycles |    |    |    |       | Pedestrians (Crossing Leg) |      |       |       |       |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
|                | EB                   | WB | NB | SB | Total | EB       | WB | NB | SB | Total | East                       | West | North | South | Total |
| 4:00 PM        | 0                    | 0  | 3  | 10 | 13    | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 4:15 PM        | 0                    | 0  | 6  | 8  | 14    | 0        | 0  | 0  | 0  | 0     | 1                          | 0    | 0     | 1     | 2     |
| 4:30 PM        | 0                    | 0  | 1  | 7  | 8     | 0        | 0  | 0  | 0  | 0     | 1                          | 0    | 0     | 0     | 1     |
| 4:45 PM        | 1                    | 0  | 2  | 4  | 7     | 0        | 0  | 0  | 0  | 0     | 1                          | 0    | 0     | 0     | 1     |
| 5:00 PM        | 0                    | 0  | 3  | 0  | 3     | 0        | 0  | 0  | 0  | 0     | 0                          | 0    | 0     | 0     | 0     |
| 5:15 PM        | 0                    | 0  | 0  | 3  | 3     | 0        | 0  | 0  | 0  | 0     | 0                          | 1    | 0     | 0     | 1     |
| 5:30 PM        | 0                    | 0  | 3  | 2  | 5     | 0        | 0  | 0  | 0  | 0     | 1                          | 2    | 0     | 0     | 3     |
| 5:45 PM        | 0                    | 0  | 0  | 1  | 1     | 0        | 0  | 0  | 0  | 0     | 5                          | 0    | 0     | 0     | 5     |
| Count Total    | 1                    | 0  | 18 | 35 | 54    | 0        | 0  | 0  | 0  | 0     | 9                          | 3    | 0     | 1     | 13    |
| Peak Hour      | 1                    | 0  | 12 | 29 | 42    | 0        | 0  | 0  | 0  | 0     | 3                          | 0    | 0     | 1     | 4     |

**Two-Hour Count Summaries - Heavy Vehicles**

| Interval<br>Start | MILES RD SE |    |    |    | MILES RD SE |    |    |    | YALE BLVD SE |    |    |    | YALE BLVD SE |    |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|-------------|----|----|----|-------------|----|----|----|--------------|----|----|----|--------------|----|----|----|-----------------|---------------------|
|                   | Eastbound   |    |    |    | Westbound   |    |    |    | Northbound   |    |    |    | Southbound   |    |    |    |                 |                     |
|                   | UT          | LT | TH | RT | UT          | LT | TH | RT | UT           | LT | TH | RT | UT           | LT | TH | RT |                 |                     |
| 4:00 PM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 3  | 0  | 0            | 0  | 10 | 0  | 13              | 0                   |
| 4:15 PM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 6  | 0  | 0            | 0  | 8  | 0  | 14              | 0                   |
| 4:30 PM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 1  | 0  | 0            | 0  | 7  | 0  | 8               | 0                   |
| 4:45 PM           | 0           | 0  | 0  | 1  | 0           | 0  | 0  | 0  | 0            | 0  | 2  | 0  | 0            | 0  | 4  | 0  | 7               | 42                  |
| 5:00 PM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 3  | 0  | 0            | 0  | 0  | 0  | 3               | 32                  |
| 5:15 PM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 0            | 0  | 3  | 0  | 3               | 21                  |
| 5:30 PM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 3  | 0  | 0            | 0  | 2  | 0  | 5               | 18                  |
| 5:45 PM           | 0           | 0  | 0  | 0  | 0           | 0  | 0  | 0  | 0            | 0  | 0  | 0  | 0            | 0  | 1  | 0  | 1               | 12                  |
| Count Total       | 0           | 0  | 0  | 1  | 0           | 0  | 0  | 0  | 0            | 0  | 18 | 0  | 0            | 0  | 35 | 0  | 54              | 0                   |
| Peak Hour         | 0           | 0  | 0  | 1  | 0           | 0  | 0  | 0  | 0            | 0  | 12 | 0  | 0            | 0  | 29 | 0  | 42              | 0                   |

**Two-Hour Count Summaries - Bikes**

| Interval<br>Start | MILES RD SE |    |    | MILES RD SE |    |    | YALE BLVD SE |    |    | YALE BLVD SE |    |    | 15-min<br>Total | Rolling<br>One Hour |
|-------------------|-------------|----|----|-------------|----|----|--------------|----|----|--------------|----|----|-----------------|---------------------|
|                   | Eastbound   |    |    | Westbound   |    |    | Northbound   |    |    | Southbound   |    |    |                 |                     |
|                   | LT          | TH | RT | LT          | TH | RT | LT           | TH | RT | LT           | TH | RT |                 |                     |
| 4:00 PM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 4:15 PM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 4:30 PM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 4:45 PM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 5:00 PM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 5:15 PM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 5:30 PM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| 5:45 PM           | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| Count Total       | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |
| Peak Hour         | 0           | 0  | 0  | 0           | 0  | 0  | 0            | 0  | 0  | 0            | 0  | 0  | 0               | 0                   |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

## **APPENDIX E – Existing Synchro Outputs**

# Timings

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                      |  |  |  |  |  |  |   |  |  |  |  |
|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Configurations  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 116                                                                               | 1522                                                                              | 239                                                                               | 146                                                                               | 661                                                                               | 55                                                                                | 126                                                                                 | 139                                                                                 | 216                                                                                 | 96                                                                                  | 94                                                                                  |
| Future Volume (vph)  | 116                                                                               | 1522                                                                              | 239                                                                               | 146                                                                               | 661                                                                               | 55                                                                                | 126                                                                                 | 139                                                                                 | 216                                                                                 | 96                                                                                  | 94                                                                                  |
| Turn Type            | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |
| Protected Phases     | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |
| Permitted Phases     | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     |
| Detector Phase       | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 | 6                                                                                 | 7                                                                                   | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   |
| Switch Phase         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                                | 25.0                                                                                | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                |
| Total Split (s)      | 30.0                                                                              | 29.2                                                                              | 29.2                                                                              | 30.4                                                                              | 29.6                                                                              | 29.6                                                                              | 30.4                                                                                | 30.0                                                                                | 30.0                                                                                | 30.4                                                                                | 30.0                                                                                |
| Total Split (%)      | 25.0%                                                                             | 24.3%                                                                             | 24.3%                                                                             | 25.3%                                                                             | 24.7%                                                                             | 24.7%                                                                             | 25.3%                                                                               | 25.0%                                                                               | 25.0%                                                                               | 25.3%                                                                               | 25.0%                                                                               |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                 |
| 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)  | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                                 | 7.0                                                                                 | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                 |
| Lead/Lag             | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode          | Max                                                                               | C-Max                                                                             | C-Max                                                                             | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                                | None                                                                                | None                                                                                | None                                                                                | None                                                                                |
| Act Effct Green (s)  | 77.1                                                                              | 58.3                                                                              | 58.3                                                                              | 36.8                                                                              | 22.6                                                                              | 22.6                                                                              | 27.5                                                                                | 16.0                                                                                | 16.0                                                                                | 31.4                                                                                | 17.9                                                                                |
| Actuated g/C Ratio   | 0.64                                                                              | 0.49                                                                              | 0.49                                                                              | 0.31                                                                              | 0.19                                                                              | 0.19                                                                              | 0.23                                                                                | 0.13                                                                                | 0.13                                                                                | 0.26                                                                                | 0.15                                                                                |
| v/c Ratio            | 0.16                                                                              | 0.67                                                                              | 0.30                                                                              | 0.66                                                                              | 0.75                                                                              | 0.15                                                                              | 0.23                                                                                | 0.32                                                                                | 0.57                                                                                | 0.30                                                                                | 0.38                                                                                |
| Control Delay        | 9.3                                                                               | 26.2                                                                              | 8.6                                                                               | 40.2                                                                              | 51.7                                                                              | 0.8                                                                               | 32.7                                                                                | 49.2                                                                                | 11.8                                                                                | 34.5                                                                                | 22.5                                                                                |
| 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          | 9.3                                                                               | 26.2                                                                              | 8.6                                                                               | 40.2                                                                              | 51.7                                                                              | 0.8                                                                               | 32.7                                                                                | 49.2                                                                                | 11.8                                                                                | 34.5                                                                                | 22.5                                                                                |
| LOS                  | A                                                                                 | C                                                                                 | A                                                                                 | D                                                                                 | D                                                                                 | A                                                                                 | C                                                                                   | D                                                                                   | B                                                                                   | C                                                                                   | C                                                                                   |
| Approach Delay       |                                                                                   | 23.0                                                                              |                                                                                   |                                                                                   | 46.5                                                                              |                                                                                   |                                                                                     | 28.1                                                                                |                                                                                     |                                                                                     | 26.3                                                                                |
| Approach LOS         |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     | C                                                                                   |

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 29.7

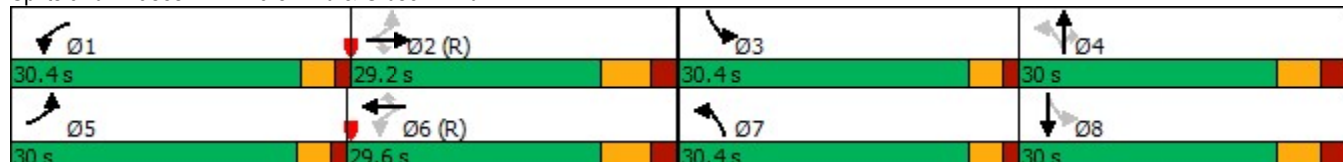
Intersection LOS: C

Intersection Capacity Utilization 75.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



# Queues

## 1: Yale Blvd & Gibson Blvd

07/21/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 126  | 1654 | 260  | 159  | 718  | 60   | 137  | 151  | 235  | 104  | 223  |
| v/c Ratio               | 0.16 | 0.67 | 0.30 | 0.66 | 0.75 | 0.15 | 0.23 | 0.32 | 0.57 | 0.30 | 0.38 |
| Control Delay           | 9.3  | 26.2 | 8.6  | 40.2 | 51.7 | 0.8  | 32.7 | 49.2 | 11.8 | 34.5 | 22.5 |
| 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             | 9.3  | 26.2 | 8.6  | 40.2 | 51.7 | 0.8  | 32.7 | 49.2 | 11.8 | 34.5 | 22.5 |
| Queue Length 50th (ft)  | 35   | 344  | 38   | 59   | 194  | 0    | 40   | 56   | 0    | 61   | 36   |
| Queue Length 95th (ft)  | 65   | 469  | 107  | 119  | 241  | 0    | 63   | 90   | 75   | 103  | 74   |
| Internal Link Dist (ft) |      | 278  |      |      | 518  |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |      | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 780  | 2471 | 855  | 451  | 957  | 393  | 889  | 678  | 493  | 455  | 721  |
| 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       | 0.16 | 0.67 | 0.30 | 0.35 | 0.75 | 0.15 | 0.15 | 0.22 | 0.48 | 0.23 | 0.31 |

### Intersection Summary

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                      |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |   |                                                                                     |
| Traffic Volume (veh/h)       | 116                                                                               | 1522                                                                                                                                                                                                                                                  | 239                                                                               | 146                                                                               | 661                                                                                                                                                                                                                                                   | 55                                                                                | 126                                                                                                                                                                     | 139                                                                                                                                                                     | 216                                                                                 | 96                                                                                  | 94                                                                                                                                                                      | 111                                                                                 |
| Future Volume (veh/h)        | 116                                                                               | 1522                                                                                                                                                                                                                                                  | 239                                                                               | 146                                                                               | 661                                                                                                                                                                                                                                                   | 55                                                                                | 126                                                                                                                                                                     | 139                                                                                                                                                                     | 216                                                                                 | 96                                                                                  | 94                                                                                                                                                                      | 111                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                                                                                                         | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                                                                                                                    | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                    | 1870                                                                                |
| Adj Flow Rate, veh/h         | 126                                                                               | 1654                                                                                                                                                                                                                                                  | 260                                                                               | 159                                                                               | 718                                                                                                                                                                                                                                                   | 60                                                                                | 137                                                                                                                                                                     | 151                                                                                                                                                                     | 235                                                                                 | 104                                                                                 | 102                                                                                                                                                                     | 121                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                                                                                                                    | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                       | 2                                                                                   |
| Cap, veh/h                   | 618                                                                               | 2559                                                                                                                                                                                                                                                  | 794                                                                               | 254                                                                               | 1855                                                                                                                                                                                                                                                  | 576                                                                               | 553                                                                                                                                                                     | 592                                                                                                                                                                     | 264                                                                                 | 307                                                                                 | 321                                                                                                                                                                     | 286                                                                                 |
| Arrive On Green              | 0.21                                                                              | 0.50                                                                                                                                                                                                                                                  | 0.50                                                                              | 0.07                                                                              | 0.36                                                                                                                                                                                                                                                  | 0.36                                                                              | 0.05                                                                                                                                                                    | 0.17                                                                                                                                                                    | 0.17                                                                                | 0.07                                                                                | 0.18                                                                                                                                                                    | 0.18                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 3456                                                                                                                                                                    | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Grp Volume(v), veh/h         | 126                                                                               | 1654                                                                                                                                                                                                                                                  | 260                                                                               | 159                                                                               | 718                                                                                                                                                                                                                                                   | 60                                                                                | 137                                                                                                                                                                     | 151                                                                                                                                                                     | 235                                                                                 | 104                                                                                 | 102                                                                                                                                                                     | 121                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1728                                                                                                                                                                    | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Q Serve(g_s), s              | 3.7                                                                               | 28.7                                                                                                                                                                                                                                                  | 11.7                                                                              | 6.6                                                                               | 12.5                                                                                                                                                                                                                                                  | 3.0                                                                               | 3.9                                                                                                                                                                     | 4.4                                                                                                                                                                     | 17.4                                                                                | 5.7                                                                                 | 6.0                                                                                                                                                                     | 8.1                                                                                 |
| Cycle Q Clear(g_c), s        | 3.7                                                                               | 28.7                                                                                                                                                                                                                                                  | 11.7                                                                              | 6.6                                                                               | 12.5                                                                                                                                                                                                                                                  | 3.0                                                                               | 3.9                                                                                                                                                                     | 4.4                                                                                                                                                                     | 17.4                                                                                | 5.7                                                                                 | 6.0                                                                                                                                                                     | 8.1                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 618                                                                               | 2559                                                                                                                                                                                                                                                  | 794                                                                               | 254                                                                               | 1855                                                                                                                                                                                                                                                  | 576                                                                               | 553                                                                                                                                                                     | 592                                                                                                                                                                     | 264                                                                                 | 307                                                                                 | 321                                                                                                                                                                     | 286                                                                                 |
| V/C Ratio(X)                 | 0.20                                                                              | 0.65                                                                                                                                                                                                                                                  | 0.33                                                                              | 0.63                                                                              | 0.39                                                                                                                                                                                                                                                  | 0.10                                                                              | 0.25                                                                                                                                                                    | 0.26                                                                                                                                                                    | 0.89                                                                                | 0.34                                                                                | 0.32                                                                                                                                                                    | 0.42                                                                                |
| Avail Cap(c_a), veh/h        | 618                                                                               | 2559                                                                                                                                                                                                                                                  | 794                                                                               | 506                                                                               | 1855                                                                                                                                                                                                                                                  | 576                                                                               | 1119                                                                                                                                                                    | 681                                                                                                                                                                     | 304                                                                                 | 574                                                                                 | 341                                                                                                                                                                     | 304                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 11.8                                                                              | 22.1                                                                                                                                                                                                                                                  | 17.9                                                                              | 22.7                                                                              | 28.3                                                                                                                                                                                                                                                  | 25.3                                                                              | 38.3                                                                                                                                                                    | 43.5                                                                                                                                                                    | 48.9                                                                                | 37.6                                                                                | 42.7                                                                                                                                                                    | 43.6                                                                                |
| Incr Delay (d2), s/veh       | 0.7                                                                               | 1.3                                                                                                                                                                                                                                                   | 1.1                                                                               | 2.5                                                                               | 0.6                                                                                                                                                                                                                                                   | 0.4                                                                               | 0.2                                                                                                                                                                     | 0.2                                                                                                                                                                     | 24.0                                                                                | 0.6                                                                                 | 0.6                                                                                                                                                                     | 1.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.5                                                                               | 10.9                                                                                                                                                                                                                                                  | 4.4                                                                               | 2.8                                                                               | 5.0                                                                                                                                                                                                                                                   | 1.2                                                                               | 1.6                                                                                                                                                                     | 1.9                                                                                                                                                                     | 8.5                                                                                 | 2.5                                                                                 | 2.6                                                                                                                                                                     | 3.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d),s/veh         | 12.5                                                                              | 23.4                                                                                                                                                                                                                                                  | 19.0                                                                              | 25.2                                                                              | 28.9                                                                                                                                                                                                                                                  | 25.6                                                                              | 38.6                                                                                                                                                                    | 43.7                                                                                                                                                                    | 72.9                                                                                | 38.3                                                                                | 43.3                                                                                                                                                                    | 44.6                                                                                |
| LnGrp LOS                    | B                                                                                 | C                                                                                                                                                                                                                                                     | B                                                                                 | C                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                 | D                                                                                                                                                                       | D                                                                                                                                                                       | E                                                                                   | D                                                                                   | D                                                                                                                                                                       | D                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 2040                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 937                                                                                                                                                                                                                                                   |                                                                                   |                                                                                                                                                                         | 523                                                                                                                                                                     |                                                                                     |                                                                                     | 327                                                                                                                                                                     |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 22.1                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 28.1                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 55.5                                                                                                                                                                    |                                                                                     |                                                                                     | 42.2                                                                                                                                                                    |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | E                                                                                                                                                                       |                                                                                     |                                                                                     | D                                                                                                                                                                       |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 13.5                                                                              | 67.1                                                                                                                                                                                                                                                  | 12.4                                                                              | 27.0                                                                              | 30.0                                                                                                                                                                                                                                                  | 50.6                                                                              | 10.7                                                                                                                                                                    | 28.7                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 25.9                                                                              | 22.2                                                                                                                                                                                                                                                  | 25.9                                                                              | 23.0                                                                              | 25.5                                                                                                                                                                                                                                                  | 22.6                                                                              | 25.9                                                                                                                                                                    | 23.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 8.6                                                                               | 30.7                                                                                                                                                                                                                                                  | 7.7                                                                               | 19.4                                                                              | 5.7                                                                                                                                                                                                                                                   | 14.5                                                                              | 5.9                                                                                                                                                                     | 10.1                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.3                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.6                                                                               | 0.3                                                                                                                                                                                                                                                   | 2.9                                                                               | 0.4                                                                                                                                                                     | 0.9                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 29.9                                                                              |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | C                                                                                 |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

Intersection

Int Delay, s/veh 0.1

Movement EBL EBT WBT WBR SBL SBR

|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |  |  |  |  |      |
| Traffic Vol, veh/h       | 15                                                                                | 1876                                                                              | 894                                                                               | 4                                                                                 | 1                                                                                 | 14   |
| Future Vol, veh/h        | 15                                                                                | 1876                                                                              | 894                                                                               | 4                                                                                 | 1                                                                                 | 14   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None |
| Storage Length           | 115                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 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                                                                                | 2039                                                                              | 972                                                                               | 4                                                                                 | 1                                                                                 | 15   |

Major/Minor Major1 Major2 Minor2

|                      |      |   |   |   |      |      |
|----------------------|------|---|---|---|------|------|
| Conflicting Flow All | 976  | 0 | - | 0 | 1822 | 488  |
| Stage 1              | -    | - | - | - | 974  | -    |
| Stage 2              | -    | - | - | - | 848  | -    |
| Critical Hdwy        | 5.34 | - | - | - | 5.74 | 7.14 |
| Critical Hdwy Stg 1  | -    | - | - | - | 6.64 | -    |
| Critical Hdwy Stg 2  | -    | - | - | - | 6.04 | -    |
| Follow-up Hdwy       | 3.12 | - | - | - | 3.82 | 3.92 |
| Pot Cap-1 Maneuver   | 402  | - | - | - | 117  | 450  |
| Stage 1              | -    | - | - | - | 251  | -    |
| Stage 2              | -    | - | - | - | 344  | -    |
| Platoon blocked, %   | -    | - | - | - | -    | -    |
| Mov Cap-1 Maneuver   | 402  | - | - | - | 112  | 450  |
| Mov Cap-2 Maneuver   | -    | - | - | - | 112  | -    |
| Stage 1              | -    | - | - | - | 241  | -    |
| Stage 2              | -    | - | - | - | 344  | -    |

Approach EB WB SB

|                      |     |   |    |
|----------------------|-----|---|----|
| HCM Control Delay, s | 0.1 | 0 | 15 |
| HCM LOS              |     |   | C  |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 402   | - | - | - | 375   |
| HCM Lane V/C Ratio    | 0.041 | - | - | - | 0.043 |
| HCM Control Delay (s) | 14.3  | - | - | - | 15    |
| HCM Lane LOS          | B     | - | - | - | C     |
| HCM 95th %tile Q(veh) | 0.1   | - | - | - | 0.1   |

HCM 6th TWSC  
3: Gibson Blvd & Buena Vista Dr

07/21/2021

Intersection

Int Delay, s/veh 0.1

| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 14                                                                                | 1891                                                                              | 903                                                                               | 5    | 0                                                                                 | 6    |
| Future Vol, veh/h        | 14                                                                                | 1891                                                                              | 903                                                                               | 5    | 0                                                                                 | 6    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 140                                                                               | -                                                                                 | -                                                                                 | -    | 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                                                                                | 2055                                                                              | 982                                                                               | 5    | 0                                                                                 | 7    |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 987    | 0      | 0 1837 494  |
| Stage 1              | -      | -      | - 985 -     |
| Stage 2              | -      | -      | - 852 -     |
| Critical Hdwy        | 5.34   | -      | - 5.74 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - 6.64 -    |
| Critical Hdwy Stg 2  | -      | -      | - 6.04 -    |
| Follow-up Hdwy       | 3.12   | -      | - 3.82 3.92 |
| Pot Cap-1 Maneuver   | 397    | -      | - 114 446   |
| Stage 1              | -      | -      | - 247 -     |
| Stage 2              | -      | -      | - 343 -     |
| Platoon blocked, %   | -      | -      | -           |
| Mov Cap-1 Maneuver   | 397    | -      | - 110 446   |
| Mov Cap-2 Maneuver   | -      | -      | - 110 -     |
| Stage 1              | -      | -      | - 238 -     |
| Stage 2              | -      | -      | - 343 -     |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0  | 13.2 |
| HCM LOS              |     |    | B    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 397   | -   | -   | -   | 446   |
| HCM Lane V/C Ratio    | 0.038 | -   | -   | -   | 0.015 |
| HCM Control Delay (s) | 14.4  | -   | -   | -   | 13.2  |
| HCM Lane LOS          | B     | -   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0     |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

07/21/2021

Intersection

Int Delay, s/veh 0.2

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1893 | 90   | 7    | 902  | 0    | 12   |
| Future Vol, veh/h        | 1893 | 90   | 7    | 902  | 0    | 12   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 2058 | 98   | 8    | 980  | 0    | 13   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 2156   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 5.34   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 3.12   |
| Pot Cap-1 Maneuver   | -      | -      | 104    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 104    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.3 | 24.5 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 198   | -   | -   | 104   | -   |
| HCM Lane V/C Ratio    | 0.066 | -   | -   | 0.073 | -   |
| HCM Control Delay (s) | 24.5  | -   | -   | 42.3  | -   |
| HCM Lane LOS          | C     | -   | -   | E     | -   |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | 0.2   | -   |

Intersection

Int Delay, s/veh 7.2

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 8    | 17                                                                                | 5                                                                                 | 4    | 90                                                                                | 7                                                                                 |
| Future Vol, veh/h        | 8    | 17                                                                                | 5                                                                                 | 4    | 90                                                                                | 7                                                                                 |
| 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                                                                                 | 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                | 9    | 18                                                                                | 5                                                                                 | 4    | 98                                                                                | 8                                                                                 |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 9      | 0      | 0 43 7        |
| Stage 1              | -      | -      | - 7 -         |
| Stage 2              | -      | -      | - 36 -        |
| 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   | 1611   | -      | - 968 1075    |
| Stage 1              | -      | -      | - 1016 -      |
| Stage 2              | -      | -      | - 986 -       |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1611   | -      | - 962 1075    |
| Mov Cap-2 Maneuver   | -      | -      | - 962 -       |
| Stage 1              | -      | -      | - 1010 -      |
| Stage 2              | -      | -      | - 986 -       |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 2.3 | 0  | 9.1 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 1611  | -   | -   | -   | 962   | 1075  |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | -   | 0.102 | 0.007 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 9.2   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   | 0     |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

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| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↔    |      |      | ↔    |      |      | ↔    | ↔    | ↔    | ↔    |      |
| Traffic Vol, veh/h       | 2    | 0    | 2    | 2    | 0    | 7    | 0    | 472  | 1    | 8    | 466  | 5    |
| Future Vol, veh/h        | 2    | 0    | 2    | 2    | 0    | 7    | 0    | 472  | 1    | 8    | 466  | 5    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | 0    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 2    | 0    | 2    | 2    | 0    | 8    | 0    | 513  | 1    | 9    | 507  | 5    |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 785    | 1042 | 256    | 734  | 1043   | 257  | 512    | 0 | 0 | 514  | 0 | 0 |
| Stage 1              | 528    | 528  | -      | 513  | 513    | -    | -      | - | - | -    | - | - |
| Stage 2              | 257    | 514  | -      | 221  | 530    | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.99   | 6.54 | 7.14   | 6.99 | 6.54   | 6.94 | 5.34   | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.67   | 4.02 | 3.92   | 3.67 | 4.02   | 3.32 | 3.12   | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 310    | 228  | 633    | 335  | 228    | 742  | 669    | - | - | 1048 | - | - |
| Stage 1              | 432    | 526  | -      | 496  | 534    | -    | -      | - | - | -    | - | - |
| Stage 2              | 699    | 534  | -      | 724  | 525    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 305    | 226  | 633    | 332  | 226    | 742  | 669    | - | - | 1048 | - | - |
| Mov Cap-2 Maneuver   | 305    | 226  | -      | 332  | 226    | -    | -      | - | - | -    | - | - |
| Stage 1              | 432    | 521  | -      | 496  | 534    | -    | -      | - | - | -    | - | - |
| Stage 2              | 692    | 534  | -      | 715  | 520    | -    | -      | - | - | -    | - | - |

| Approach             | EB   |  | WB   |  | NB |  | SB  |  |
|----------------------|------|--|------|--|----|--|-----|--|
| HCM Control Delay, s | 13.8 |  | 11.3 |  | 0  |  | 0.1 |  |
| HCM LOS              | B    |  | B    |  |    |  |     |  |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|-----|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 669 | -   | -   | 412   | 582   | 1048  | -   | -   |
| HCM Lane V/C Ratio    | -   | -   | -   | 0.011 | 0.017 | 0.008 | -   | -   |
| HCM Control Delay (s) | 0   | -   | -   | 13.8  | 11.3  | 8.5   | -   | -   |
| HCM Lane LOS          | A   | -   | -   | B     | B     | A     | -   | -   |
| HCM 95th %tile Q(veh) | 0   | -   | -   | 0     | 0.1   | 0     | -   | -   |

# Timings

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                      |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                       |                                                                                      |  |  |                                                                                      |
|----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     |
| Lane Configurations  |  |    |  |  |    |  |   |   |  |  |   |
| Traffic Volume (vph) | 121                                                                               | 742                                                                                                                                                                                                                                                   | 324                                                                               | 323                                                                               | 1908                                                                                                                                                                                                                                                  | 116                                                                               | 260                                                                                                                                                                     | 170                                                                                                                                                                     | 253                                                                                 | 92                                                                                  | 271                                                                                                                                                                     |
| Future Volume (vph)  | 121                                                                               | 742                                                                                                                                                                                                                                                   | 324                                                                               | 323                                                                               | 1908                                                                                                                                                                                                                                                  | 116                                                                               | 260                                                                                                                                                                     | 170                                                                                                                                                                     | 253                                                                                 | 92                                                                                  | 271                                                                                                                                                                     |
| Turn Type            | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                                                                                                                   | NA                                                                                                                                                                      | Perm                                                                                | pm+pt                                                                               | NA                                                                                                                                                                      |
| Protected Phases     | 5                                                                                 | 2                                                                                                                                                                                                                                                     |                                                                                   | 1                                                                                 | 6                                                                                                                                                                                                                                                     |                                                                                   | 7                                                                                                                                                                       | 4                                                                                                                                                                       |                                                                                     | 3                                                                                   | 8                                                                                                                                                                       |
| Permitted Phases     | 2                                                                                 |                                                                                                                                                                                                                                                       | 2                                                                                 | 6                                                                                 |                                                                                                                                                                                                                                                       | 6                                                                                 | 4                                                                                                                                                                       |                                                                                                                                                                         | 4                                                                                   | 8                                                                                   |                                                                                                                                                                         |
| Detector Phase       | 5                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 1                                                                                 | 6                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 4                                                                                                                                                                       | 4                                                                                   | 3                                                                                   | 8                                                                                                                                                                       |
| Switch Phase         |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                                                                                                                     | 16.0                                                                                                                                                                    | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                                                                                                    |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                                                                                                                    | 25.0                                                                                                                                                                    | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                                                                                                    |
| Total Split (s)      | 33.0                                                                              | 32.0                                                                                                                                                                                                                                                  | 32.0                                                                              | 32.5                                                                              | 31.5                                                                                                                                                                                                                                                  | 31.5                                                                              | 32.5                                                                                                                                                                    | 33.0                                                                                                                                                                    | 33.0                                                                                | 32.5                                                                                | 33.0                                                                                                                                                                    |
| Total Split (%)      | 25.4%                                                                             | 24.6%                                                                                                                                                                                                                                                 | 24.6%                                                                             | 25.0%                                                                             | 24.2%                                                                                                                                                                                                                                                 | 24.2%                                                                             | 25.0%                                                                                                                                                                   | 25.4%                                                                                                                                                                   | 25.4%                                                                               | 25.0%                                                                               | 25.4%                                                                                                                                                                   |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                                                                                                                     | 4.0                                                                                                                                                                     | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                                                                                                     |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                                                                                                                     | 3.0                                                                                                                                                                     | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                                                                                                     |
| 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)  | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                                                                                                     |
| Lead/Lag             | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                                                                                                                    | Lag                                                                                                                                                                     | Lag                                                                                 | Lead                                                                                | Lag                                                                                                                                                                     |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                                                                                                                     | Yes                                                                                                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                                                                                                     |
| Recall Mode          | Max                                                                               | C-Max                                                                                                                                                                                                                                                 | C-Max                                                                             | None                                                                              | Max                                                                                                                                                                                                                                                   | Max                                                                               | None                                                                                                                                                                    | None                                                                                                                                                                    | None                                                                                | None                                                                                | None                                                                                                                                                                    |
| Act Effct Green (s)  | 78.6                                                                              | 45.4                                                                                                                                                                                                                                                  | 45.4                                                                              | 53.4                                                                              | 24.5                                                                                                                                                                                                                                                  | 24.5                                                                              | 41.1                                                                                                                                                                    | 24.5                                                                                                                                                                    | 24.5                                                                                | 34.4                                                                                | 21.2                                                                                                                                                                    |
| Actuated g/C Ratio   | 0.60                                                                              | 0.35                                                                                                                                                                                                                                                  | 0.35                                                                              | 0.41                                                                              | 0.19                                                                                                                                                                                                                                                  | 0.19                                                                              | 0.32                                                                                                                                                                    | 0.19                                                                                                                                                                    | 0.19                                                                                | 0.26                                                                                | 0.16                                                                                                                                                                    |
| v/c Ratio            | 0.19                                                                              | 0.45                                                                                                                                                                                                                                                  | 0.45                                                                              | 0.72                                                                              | 2.16                                                                                                                                                                                                                                                  | 0.33                                                                              | 0.53                                                                                                                                                                    | 0.28                                                                                                                                                                    | 0.53                                                                                | 0.28                                                                                | 0.77                                                                                                                                                                    |
| Control Delay        | 13.0                                                                              | 36.2                                                                                                                                                                                                                                                  | 6.1                                                                               | 28.8                                                                              | 553.8                                                                                                                                                                                                                                                 | 13.5                                                                              | 35.1                                                                                                                                                                    | 45.3                                                                                                                                                                    | 8.6                                                                                 | 31.9                                                                                | 50.7                                                                                                                                                                    |
| 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          | 13.0                                                                              | 36.2                                                                                                                                                                                                                                                  | 6.1                                                                               | 28.8                                                                              | 553.8                                                                                                                                                                                                                                                 | 13.5                                                                              | 35.1                                                                                                                                                                    | 45.3                                                                                                                                                                    | 8.6                                                                                 | 31.9                                                                                | 50.7                                                                                                                                                                    |
| LOS                  | B                                                                                 | D                                                                                                                                                                                                                                                     | A                                                                                 | C                                                                                 | F                                                                                                                                                                                                                                                     | B                                                                                 | D                                                                                                                                                                       | D                                                                                                                                                                       | A                                                                                   | C                                                                                   | D                                                                                                                                                                       |
| Approach Delay       |                                                                                   | 25.6                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 454.9                                                                                                                                                                                                                                                 |                                                                                   |                                                                                                                                                                         | 27.8                                                                                                                                                                    |                                                                                     |                                                                                     | 47.4                                                                                                                                                                    |
| Approach LOS         |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | F                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | C                                                                                                                                                                       |                                                                                     |                                                                                     | D                                                                                                                                                                       |

### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.16

Intersection Signal Delay: 240.7

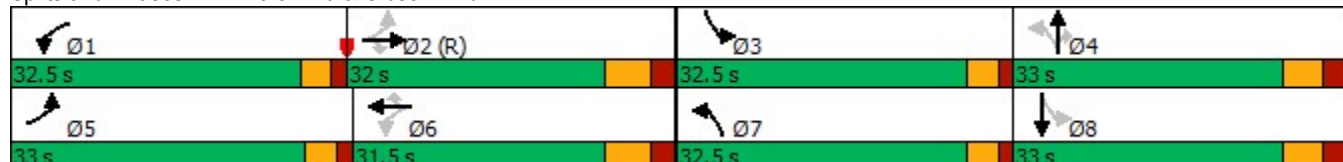
Intersection LOS: F

Intersection Capacity Utilization 83.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



# Queues

## 1: Yale Blvd & Gibson Blvd

07/21/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 132  | 807  | 352  | 351  | 2074  | 126  | 283  | 185  | 275  | 100  | 473  |
| v/c Ratio               | 0.19 | 0.45 | 0.45 | 0.72 | 2.16  | 0.33 | 0.53 | 0.28 | 0.53 | 0.28 | 0.77 |
| Control Delay           | 13.0 | 36.2 | 6.1  | 28.8 | 553.8 | 13.5 | 35.1 | 45.3 | 8.6  | 31.9 | 50.7 |
| 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             | 13.0 | 36.2 | 6.1  | 28.8 | 553.8 | 13.5 | 35.1 | 45.3 | 8.6  | 31.9 | 50.7 |
| Queue Length 50th (ft)  | 44   | 191  | 0    | 148  | ~1022 | 12   | 90   | 71   | 0    | 61   | 167  |
| Queue Length 95th (ft)  | 90   | 283  | 84   | 238  | #1116 | 68   | 112  | 100  | 72   | 93   | 216  |
| Internal Link Dist (ft) |      | 278  |      |      | 518   |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |       | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 705  | 1774 | 781  | 533  | 958   | 386  | 823  | 739  | 548  | 510  | 743  |
| 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       | 0.19 | 0.45 | 0.45 | 0.66 | 2.16  | 0.33 | 0.34 | 0.25 | 0.50 | 0.20 | 0.64 |

### Intersection Summary

~ 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.

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                       |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |   |  |
| Traffic Volume (veh/h)       | 121                                                                               | 742                                                                                                                                                                                                                                                   | 324                                                                               | 323                                                                               | 1908                                                                                                                                                                                                                                                  | 116                                                                               | 260                                                                                                                                                                     | 170                                                                                                                                                                     | 253                                                                                 | 92                                                                                  | 271                                                                                                                                                                     | 164                                                                                 |
| Future Volume (veh/h)        | 121                                                                               | 742                                                                                                                                                                                                                                                   | 324                                                                               | 323                                                                               | 1908                                                                                                                                                                                                                                                  | 116                                                                               | 260                                                                                                                                                                     | 170                                                                                                                                                                     | 253                                                                                 | 92                                                                                  | 271                                                                                                                                                                     | 164                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                                                                                                         | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                                                                                                                    | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                    | 1870                                                                                |
| Adj Flow Rate, veh/h         | 132                                                                               | 807                                                                                                                                                                                                                                                   | 352                                                                               | 351                                                                               | 2074                                                                                                                                                                                                                                                  | 126                                                                               | 283                                                                                                                                                                     | 185                                                                                                                                                                     | 275                                                                                 | 100                                                                                 | 295                                                                                                                                                                     | 178                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                                                                                                                    | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                       | 2                                                                                   |
| Cap, veh/h                   | 446                                                                               | 2178                                                                                                                                                                                                                                                  | 676                                                                               | 468                                                                               | 1797                                                                                                                                                                                                                                                  | 558                                                                               | 463                                                                                                                                                                     | 671                                                                                                                                                                     | 299                                                                                 | 302                                                                                 | 353                                                                                                                                                                     | 207                                                                                 |
| Arrive On Green              | 0.22                                                                              | 0.43                                                                                                                                                                                                                                                  | 0.43                                                                              | 0.14                                                                              | 0.35                                                                                                                                                                                                                                                  | 0.35                                                                              | 0.09                                                                                                                                                                    | 0.19                                                                                                                                                                    | 0.19                                                                                | 0.06                                                                                | 0.16                                                                                                                                                                    | 0.16                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 3456                                                                                                                                                                    | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 2154                                                                                                                                                                    | 1265                                                                                |
| Grp Volume(v), veh/h         | 132                                                                               | 807                                                                                                                                                                                                                                                   | 352                                                                               | 351                                                                               | 2074                                                                                                                                                                                                                                                  | 126                                                                               | 283                                                                                                                                                                     | 185                                                                                                                                                                     | 275                                                                                 | 100                                                                                 | 242                                                                                                                                                                     | 231                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1728                                                                                                                                                                    | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1643                                                                                |
| Q Serve(g_s), s              | 4.3                                                                               | 14.0                                                                                                                                                                                                                                                  | 21.3                                                                              | 16.1                                                                              | 45.8                                                                                                                                                                                                                                                  | 7.3                                                                               | 8.6                                                                                                                                                                     | 5.8                                                                                                                                                                     | 22.1                                                                                | 6.0                                                                                 | 17.1                                                                                                                                                                    | 17.8                                                                                |
| Cycle Q Clear(g_c), s        | 4.3                                                                               | 14.0                                                                                                                                                                                                                                                  | 21.3                                                                              | 16.1                                                                              | 45.8                                                                                                                                                                                                                                                  | 7.3                                                                               | 8.6                                                                                                                                                                     | 5.8                                                                                                                                                                     | 22.1                                                                                | 6.0                                                                                 | 17.1                                                                                                                                                                    | 17.8                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 0.77                                                                                |
| Lane Grp Cap(c), veh/h       | 446                                                                               | 2178                                                                                                                                                                                                                                                  | 676                                                                               | 468                                                                               | 1797                                                                                                                                                                                                                                                  | 558                                                                               | 463                                                                                                                                                                     | 671                                                                                                                                                                     | 299                                                                                 | 302                                                                                 | 291                                                                                                                                                                     | 269                                                                                 |
| V/C Ratio(X)                 | 0.30                                                                              | 0.37                                                                                                                                                                                                                                                  | 0.52                                                                              | 0.75                                                                              | 1.15                                                                                                                                                                                                                                                  | 0.23                                                                              | 0.61                                                                                                                                                                    | 0.28                                                                                                                                                                    | 0.92                                                                                | 0.33                                                                                | 0.83                                                                                                                                                                    | 0.86                                                                                |
| Avail Cap(c_a), veh/h        | 446                                                                               | 2178                                                                                                                                                                                                                                                  | 676                                                                               | 594                                                                               | 1797                                                                                                                                                                                                                                                  | 558                                                                               | 903                                                                                                                                                                     | 711                                                                                                                                                                     | 317                                                                                 | 574                                                                                 | 355                                                                                                                                                                     | 329                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 20.8                                                                              | 25.4                                                                                                                                                                                                                                                  | 27.5                                                                              | 20.8                                                                              | 42.1                                                                                                                                                                                                                                                  | 29.6                                                                              | 40.6                                                                                                                                                                    | 45.1                                                                                                                                                                    | 51.7                                                                                | 41.2                                                                                | 52.6                                                                                                                                                                    | 52.9                                                                                |
| Incr Delay (d2), s/veh       | 1.7                                                                               | 0.5                                                                                                                                                                                                                                                   | 2.9                                                                               | 4.0                                                                               | 76.1                                                                                                                                                                                                                                                  | 0.9                                                                               | 1.3                                                                                                                                                                     | 0.2                                                                                                                                                                     | 29.7                                                                                | 0.6                                                                                 | 13.0                                                                                                                                                                    | 17.2                                                                                |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.8                                                                               | 5.6                                                                                                                                                                                                                                                   | 8.4                                                                               | 6.9                                                                               | 31.0                                                                                                                                                                                                                                                  | 2.9                                                                               | 3.7                                                                                                                                                                     | 2.6                                                                                                                                                                     | 11.1                                                                                | 2.7                                                                                 | 8.6                                                                                                                                                                     | 8.5                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d),s/veh         | 22.5                                                                              | 25.9                                                                                                                                                                                                                                                  | 30.3                                                                              | 24.8                                                                              | 118.2                                                                                                                                                                                                                                                 | 30.6                                                                              | 41.9                                                                                                                                                                    | 45.3                                                                                                                                                                    | 81.5                                                                                | 41.8                                                                                | 65.7                                                                                                                                                                    | 70.1                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                 | C                                                                                 | F                                                                                                                                                                                                                                                     | C                                                                                 | D                                                                                                                                                                       | D                                                                                                                                                                       | F                                                                                   | D                                                                                   | E                                                                                                                                                                       | E                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 1291                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 2551                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 743                                                                                                                                                                     |                                                                                     |                                                                                     | 573                                                                                                                                                                     |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 26.7                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 101.0                                                                                                                                                                                                                                                 |                                                                                   |                                                                                                                                                                         | 57.4                                                                                                                                                                    |                                                                                     |                                                                                     | 63.3                                                                                                                                                                    |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | F                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | E                                                                                                                                                                       |                                                                                     |                                                                                     | E                                                                                                                                                                       |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 23.3                                                                              | 62.5                                                                                                                                                                                                                                                  | 12.7                                                                              | 31.5                                                                              | 33.0                                                                                                                                                                                                                                                  | 52.8                                                                              | 16.0                                                                                                                                                                    | 28.3                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 28.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 28.0                                                                              | 26.0                                                                              | 28.5                                                                                                                                                                                                                                                  | 24.5                                                                              | 28.0                                                                                                                                                                    | 26.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 18.1                                                                              | 23.3                                                                                                                                                                                                                                                  | 8.0                                                                               | 24.1                                                                              | 6.3                                                                                                                                                                                                                                                   | 47.8                                                                              | 10.6                                                                                                                                                                    | 19.8                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.7                                                                               | 1.1                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.4                                                                               | 0.3                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.9                                                                                                                                                                     | 1.4                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 72.0                                                                              |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | E                                                                                 |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

HCM 6th TWSC  
2: Gibson Blvd & Wilmoore Dr

07/21/2021

Intersection

Int Delay, s/veh 2

| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR                                                                               | SBL                                                                               | SBR  |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |  |  |  |  |      |
| Traffic Vol, veh/h       | 28                                                                                | 1182                                                                              | 2312                                                                              | 20                                                                                | 5                                                                                 | 24   |
| Future Vol, veh/h        | 28                                                                                | 1182                                                                              | 2312                                                                              | 20                                                                                | 5                                                                                 | 24   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None |
| Storage Length           | 115                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 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                                                                                | 1285                                                                              | 2513                                                                              | 22                                                                                | 5                                                                                 | 26   |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 2535   | 0      | 0 3098 1268 |
| Stage 1              | -      | -      | - 2524 -    |
| Stage 2              | -      | -      | - 574 -     |
| Critical Hdwy        | 5.34   | -      | - 5.74 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - 6.64 -    |
| Critical Hdwy Stg 2  | -      | -      | - 6.04 -    |
| Follow-up Hdwy       | 3.12   | -      | - 3.82 3.92 |
| Pot Cap-1 Maneuver   | 66     | -      | - 23 137    |
| Stage 1              | -      | -      | - 26 -      |
| Stage 2              | -      | -      | - 480 -     |
| Platoon blocked, %   | -      | -      | -           |
| Mov Cap-1 Maneuver   | 66     | -      | - 13 137    |
| Mov Cap-2 Maneuver   | -      | -      | - 13 -      |
| Stage 1              | -      | -      | - 14 -      |
| Stage 2              | -      | -      | - 480 -     |

| Approach             | EB  | WB | SB    |
|----------------------|-----|----|-------|
| HCM Control Delay, s | 2.3 | 0  | 149.1 |
| HCM LOS              |     |    | F     |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 66    | -   | -   | -   | 52    |
| HCM Lane V/C Ratio    | 0.461 | -   | -   | -   | 0.606 |
| HCM Control Delay (s) | 99.6  | -   | -   | -   | 149.1 |
| HCM Lane LOS          | F     | -   | -   | -   | F     |
| HCM 95th %tile Q(veh) | 1.8   | -   | -   | -   | 2.4   |

HCM 6th TWSC  
3: Gibson Blvd & Buena Vista Dr

07/21/2021

Intersection

Int Delay, s/veh 1.3

Movement EBL EBT WBT WBR SBL SBR

|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |  |  |  |  |      |
| Traffic Vol, veh/h       | 30                                                                                | 1208                                                                              | 2329                                                                              | 7                                                                                 | 2                                                                                 | 15   |
| Future Vol, veh/h        | 30                                                                                | 1208                                                                              | 2329                                                                              | 7                                                                                 | 2                                                                                 | 15   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None |
| Storage Length           | 140                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 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                                                                                | 1313                                                                              | 2532                                                                              | 8                                                                                 | 2                                                                                 | 16   |

Major/Minor Major1 Major2 Minor2

|                      |      |   |   |   |      |      |
|----------------------|------|---|---|---|------|------|
| Conflicting Flow All | 2540 | 0 | - | 0 | 3127 | 1270 |
| Stage 1              | -    | - | - | - | 2536 | -    |
| Stage 2              | -    | - | - | - | 591  | -    |
| Critical Hdwy        | 5.34 | - | - | - | 5.74 | 7.14 |
| Critical Hdwy Stg 1  | -    | - | - | - | 6.64 | -    |
| Critical Hdwy Stg 2  | -    | - | - | - | 6.04 | -    |
| Follow-up Hdwy       | 3.12 | - | - | - | 3.82 | 3.92 |
| Pot Cap-1 Maneuver   | 66   | - | - | - | 22   | 137  |
| Stage 1              | -    | - | - | - | 25   | -    |
| Stage 2              | -    | - | - | - | 471  | -    |
| Platoon blocked, %   | -    | - | - | - | -    | -    |
| Mov Cap-1 Maneuver   | 66   | - | - | - | 11   | 137  |
| Mov Cap-2 Maneuver   | -    | - | - | - | 11   | -    |
| Stage 1              | -    | - | - | - | 13   | -    |
| Stage 2              | -    | - | - | - | 471  | -    |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 2.5 | 0 | 93.8 |
| HCM LOS              |     |   | F    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 66    | - | - | - | 58    |
| HCM Lane V/C Ratio    | 0.494 | - | - | - | 0.319 |
| HCM Control Delay (s) | 104.1 | - | - | - | 93.8  |
| HCM Lane LOS          | F     | - | - | - | F     |
| HCM 95th %tile Q(veh) | 2     | - | - | - | 1.1   |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

07/21/2021

Intersection

Int Delay, s/veh 0.2

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1210 | 46   | 16   | 2328 | 0    | 28   |
| Future Vol, veh/h        | 1210 | 46   | 16   | 2328 | 0    | 28   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 1315 | 50   | 17   | 2530 | 0    | 30   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1365   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 5.34   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.12   | -      |
| Pot Cap-1 Maneuver   | -      | 260    | 0      |
| Stage 1              | -      | -      | 0      |
| Stage 2              | -      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 260    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 16.3 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 349   | -   | -   | 260   | -   |
| HCM Lane V/C Ratio    | 0.087 | -   | -   | 0.067 | -   |
| HCM Control Delay (s) | 16.3  | -   | -   | 19.8  | -   |
| HCM Lane LOS          | C     | -   | -   | C     | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | 0.2   | -   |

Intersection

Int Delay, s/veh 4.3

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 19   | 24                                                                                | 52                                                                                | 9    | 40                                                                                | 22                                                                                |
| Future Vol, veh/h        | 19   | 24                                                                                | 52                                                                                | 9    | 40                                                                                | 22                                                                                |
| 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                                                                                 | 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   | 26                                                                                | 57                                                                                | 10   | 43                                                                                | 24                                                                                |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 67     | 0      | 130    |
| Stage 1              | -      | -      | 62     |
| Stage 2              | -      | -      | 68     |
| 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   | 1535   | -      | 864    |
| Stage 1              | -      | -      | 961    |
| Stage 2              | -      | -      | 955    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1535   | -      | 852    |
| Mov Cap-2 Maneuver   | -      | -      | 852    |
| Stage 1              | -      | -      | 948    |
| Stage 2              | -      | -      | 955    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.3 | 0  | 9.2 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 1535  | -   | -   | -   | 852   | 1003  |
| HCM Lane V/C Ratio    | 0.013 | -   | -   | -   | 0.051 | 0.024 |
| HCM Control Delay (s) | 7.4   | 0   | -   | -   | 9.5   | 8.7   |
| HCM Lane LOS          | A     | A   | -   | -   | A     | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.2   | 0.1   |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

07/21/2021

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.7  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↔    |      |      | ↔    |      |      | ↔    | ↔    | ↔    | ↔    |      |
| Traffic Vol, veh/h       | 3    | 2    | 12   | 7    | 1    | 16   | 2    | 664  | 3    | 33   | 877  | 8    |
| Future Vol, veh/h        | 3    | 2    | 12   | 7    | 1    | 16   | 2    | 664  | 3    | 33   | 877  | 8    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | 0    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 2    | 13   | 8    | 1    | 17   | 2    | 722  | 3    | 36   | 953  | 9    |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1396   | 1759 | 481    | 1180 | 1760   | 361  | 962    | 0 | 0 | 725  | 0 | 0 |
| Stage 1              | 1030   | 1030 | -      | 726  | 726    | -    | -      | - | - | -    | - | - |
| Stage 2              | 366    | 729  | -      | 454  | 1034   | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.99   | 6.54 | 7.14   | 6.99 | 6.54   | 6.94 | 5.34   | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.67   | 4.02 | 3.92   | 3.67 | 4.02   | 3.32 | 3.12   | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 122    | 84   | 454    | 171  | 84     | 636  | 408    | - | - | 874  | - | - |
| Stage 1              | 194    | 309  | -      | 371  | 428    | -    | -      | - | - | -    | - | - |
| Stage 2              | 604    | 426  | -      | 524  | 308    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 113    | 80   | 454    | 157  | 80     | 636  | 408    | - | - | 874  | - | - |
| Mov Cap-2 Maneuver   | 113    | 80   | -      | 157  | 80     | -    | -      | - | - | -    | - | - |
| Stage 1              | 192    | 296  | -      | 368  | 425    | -    | -      | - | - | -    | - | - |
| Stage 2              | 581    | 423  | -      | 484  | 295    | -    | -      | - | - | -    | - | - |

| Approach             | EB | WB   | NB  | SB  |
|----------------------|----|------|-----|-----|
| HCM Control Delay, s | 23 | 18.5 | 0.1 | 0.3 |
| HCM LOS              | C  | C    |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 408   | -   | -   | 218        | 292   | 874   | -   |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | 0.085      | 0.089 | 0.041 | -   |
| HCM Control Delay (s) | 13.9  | 0.1 | -   | 23         | 18.5  | 9.3   | -   |
| HCM Lane LOS          | B     | A   | -   | C          | C     | A     | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.3        | 0.3   | 0.1   | -   |

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4: Walker Rd & Gibson Blvd Performance by movement

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| Movement           | EBT  | EBR | WBL  | WBT | NBR | All |
|--------------------|------|-----|------|-----|-----|-----|
| Denied Del/Veh (s) | 0.0  | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s)  | 10.3 | 8.9 | 28.3 | 1.7 | 9.5 | 7.5 |

# Queuing and Blocking Report

## Baseline

07/23/2021

### Intersection: 4: Walker Rd & Gibson Blvd

| Movement              | EB   | EB   | EB   | WB  | NB  |
|-----------------------|------|------|------|-----|-----|
| Directions Served     | T    | T    | T    | L   | R   |
| Maximum Queue (ft)    | 1106 | 1077 | 1062 | 28  | 22  |
| Average Queue (ft)    | 40   | 38   | 38   | 5   | 8   |
| 95th Queue (ft)       | 378  | 368  | 363  | 23  | 25  |
| Link Distance (ft)    | 1094 | 1094 | 1094 |     | 218 |
| Upstream Blk Time (%) | 0    | 0    |      |     |     |
| Queuing Penalty (veh) | 0    | 0    |      |     |     |
| Storage Bay Dist (ft) |      |      |      | 175 |     |
| Storage Blk Time (%)  |      |      |      |     |     |
| Queuing Penalty (veh) |      |      |      |     |     |

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4: Walker Rd & Gibson Blvd Performance by movement

---

| Movement           | EBT | EBR | WBL  | WBT | NBT | NBR | All |
|--------------------|-----|-----|------|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s)  | 4.4 | 4.0 | 12.3 | 2.4 | 2.0 | 7.7 | 3.4 |

## Intersection: 4: Walker Rd & Gibson Blvd

| Movement              | EB  | WB  | NB  |
|-----------------------|-----|-----|-----|
| Directions Served     | R   | L   | R   |
| Maximum Queue (ft)    | 21  | 29  | 46  |
| Average Queue (ft)    | 1   | 5   | 12  |
| 95th Queue (ft)       | 7   | 22  | 37  |
| Link Distance (ft)    |     |     | 218 |
| Upstream Blk Time (%) |     |     |     |
| Queuing Penalty (veh) |     |     |     |
| Storage Bay Dist (ft) | 125 | 175 |     |
| Storage Blk Time (%)  |     |     |     |
| Queuing Penalty (veh) |     |     |     |

## **APPENDIX F – Background (without site development) Synchro Outputs**

# Timings

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                      |  |  |  |  |  |  |   |  |  |  |  |
|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Configurations  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 117                                                                               | 1537                                                                              | 241                                                                               | 147                                                                               | 668                                                                               | 56                                                                                | 127                                                                                 | 140                                                                                 | 218                                                                                 | 97                                                                                  | 95                                                                                  |
| Future Volume (vph)  | 117                                                                               | 1537                                                                              | 241                                                                               | 147                                                                               | 668                                                                               | 56                                                                                | 127                                                                                 | 140                                                                                 | 218                                                                                 | 97                                                                                  | 95                                                                                  |
| Turn Type            | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |
| Protected Phases     | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |
| Permitted Phases     | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     |
| Detector Phase       | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 | 6                                                                                 | 7                                                                                   | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   |
| Switch Phase         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                                | 25.0                                                                                | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                |
| Total Split (s)      | 30.0                                                                              | 29.2                                                                              | 29.2                                                                              | 30.4                                                                              | 29.6                                                                              | 29.6                                                                              | 30.4                                                                                | 30.0                                                                                | 30.0                                                                                | 30.4                                                                                | 30.0                                                                                |
| Total Split (%)      | 25.0%                                                                             | 24.3%                                                                             | 24.3%                                                                             | 25.3%                                                                             | 24.7%                                                                             | 24.7%                                                                             | 25.3%                                                                               | 25.0%                                                                               | 25.0%                                                                               | 25.3%                                                                               | 25.0%                                                                               |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                 |
| 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)  | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                                 | 7.0                                                                                 | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                 |
| Lead/Lag             | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode          | Max                                                                               | C-Max                                                                             | C-Max                                                                             | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                                | None                                                                                | None                                                                                | None                                                                                | None                                                                                |
| Act Effct Green (s)  | 77.0                                                                              | 58.2                                                                              | 58.2                                                                              | 36.9                                                                              | 22.6                                                                              | 22.6                                                                              | 27.5                                                                                | 16.0                                                                                | 16.0                                                                                | 31.4                                                                                | 17.9                                                                                |
| Actuated g/C Ratio   | 0.64                                                                              | 0.48                                                                              | 0.48                                                                              | 0.31                                                                              | 0.19                                                                              | 0.19                                                                              | 0.23                                                                                | 0.13                                                                                | 0.13                                                                                | 0.26                                                                                | 0.15                                                                                |
| v/c Ratio            | 0.16                                                                              | 0.68                                                                              | 0.31                                                                              | 0.66                                                                              | 0.76                                                                              | 0.16                                                                              | 0.23                                                                                | 0.32                                                                                | 0.57                                                                                | 0.30                                                                                | 0.38                                                                                |
| Control Delay        | 9.4                                                                               | 26.5                                                                              | 8.8                                                                               | 40.2                                                                              | 52.0                                                                              | 0.8                                                                               | 32.7                                                                                | 49.2                                                                                | 11.8                                                                                | 34.6                                                                                | 22.5                                                                                |
| 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          | 9.4                                                                               | 26.5                                                                              | 8.8                                                                               | 40.2                                                                              | 52.0                                                                              | 0.8                                                                               | 32.7                                                                                | 49.2                                                                                | 11.8                                                                                | 34.6                                                                                | 22.5                                                                                |
| LOS                  | A                                                                                 | C                                                                                 | A                                                                                 | D                                                                                 | D                                                                                 | A                                                                                 | C                                                                                   | D                                                                                   | B                                                                                   | C                                                                                   | C                                                                                   |
| Approach Delay       |                                                                                   | 23.2                                                                              |                                                                                   |                                                                                   | 46.7                                                                              |                                                                                   |                                                                                     | 28.0                                                                                |                                                                                     |                                                                                     | 26.3                                                                                |
| Approach LOS         |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     | C                                                                                   |

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 29.9

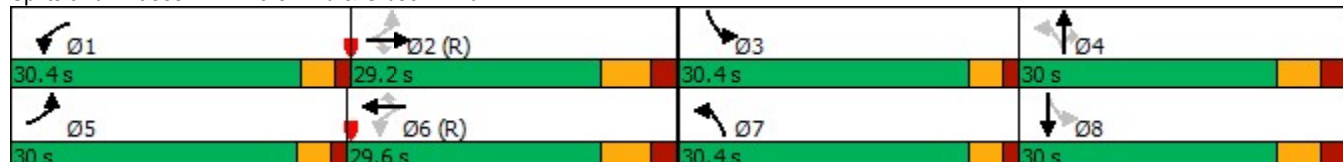
Intersection LOS: C

Intersection Capacity Utilization 75.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



# Queues

## 1: Yale Blvd & Gibson Blvd

07/21/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 127  | 1671 | 262  | 160  | 726  | 61   | 138  | 152  | 237  | 105  | 225  |
| v/c Ratio               | 0.16 | 0.68 | 0.31 | 0.66 | 0.76 | 0.16 | 0.23 | 0.32 | 0.57 | 0.30 | 0.38 |
| Control Delay           | 9.4  | 26.5 | 8.8  | 40.2 | 52.0 | 0.8  | 32.7 | 49.2 | 11.8 | 34.6 | 22.5 |
| 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             | 9.4  | 26.5 | 8.8  | 40.2 | 52.0 | 0.8  | 32.7 | 49.2 | 11.8 | 34.6 | 22.5 |
| Queue Length 50th (ft)  | 35   | 351  | 39   | 60   | 197  | 0    | 41   | 56   | 0    | 62   | 37   |
| Queue Length 95th (ft)  | 66   | 477  | 109  | 120  | 244  | 0    | 63   | 91   | 75   | 104  | 74   |
| Internal Link Dist (ft) |      | 278  |      |      | 518  |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |      | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 777  | 2466 | 854  | 451  | 957  | 393  | 889  | 678  | 494  | 454  | 722  |
| 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       | 0.16 | 0.68 | 0.31 | 0.35 | 0.76 | 0.16 | 0.16 | 0.22 | 0.48 | 0.23 | 0.31 |

### Intersection Summary

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |   |                                                                                       |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                                | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |   |  |
| Traffic Volume (veh/h)       | 117                                                                               | 1537                                                                                                                                                                                                                                                  | 241                                                                               | 147                                                                               | 668                                                                                                                                                                                                                                                   | 56                                                                                 | 127                                                                                                                                                                     | 140                                                                                                                                                                     | 218                                                                                 | 97                                                                                  | 95                                                                                                                                                                      | 112                                                                                 |
| Future Volume (veh/h)        | 117                                                                               | 1537                                                                                                                                                                                                                                                  | 241                                                                               | 147                                                                               | 668                                                                                                                                                                                                                                                   | 56                                                                                 | 127                                                                                                                                                                     | 140                                                                                                                                                                     | 218                                                                                 | 97                                                                                  | 95                                                                                                                                                                      | 112                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                  | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                               | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                    |                                                                                                                                                                         | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                               | 1870                                                                                                                                                                    | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                    | 1870                                                                                |
| Adj Flow Rate, veh/h         | 127                                                                               | 1671                                                                                                                                                                                                                                                  | 262                                                                               | 160                                                                               | 726                                                                                                                                                                                                                                                   | 61                                                                                 | 138                                                                                                                                                                     | 152                                                                                                                                                                     | 237                                                                                 | 105                                                                                 | 103                                                                                                                                                                     | 122                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                               | 0.92                                                                                                                                                                    | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                  | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                       | 2                                                                                   |
| Cap, veh/h                   | 615                                                                               | 2548                                                                                                                                                                                                                                                  | 791                                                                               | 253                                                                               | 1847                                                                                                                                                                                                                                                  | 573                                                                                | 555                                                                                                                                                                     | 596                                                                                                                                                                     | 266                                                                                 | 308                                                                                 | 323                                                                                                                                                                     | 288                                                                                 |
| Arrive On Green              | 0.21                                                                              | 0.50                                                                                                                                                                                                                                                  | 0.50                                                                              | 0.08                                                                              | 0.36                                                                                                                                                                                                                                                  | 0.36                                                                               | 0.05                                                                                                                                                                    | 0.17                                                                                                                                                                    | 0.17                                                                                | 0.07                                                                                | 0.18                                                                                                                                                                    | 0.18                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                               | 3456                                                                                                                                                                    | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Grp Volume(v), veh/h         | 127                                                                               | 1671                                                                                                                                                                                                                                                  | 262                                                                               | 160                                                                               | 726                                                                                                                                                                                                                                                   | 61                                                                                 | 138                                                                                                                                                                     | 152                                                                                                                                                                     | 237                                                                                 | 105                                                                                 | 103                                                                                                                                                                     | 122                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                               | 1728                                                                                                                                                                    | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Q Serve(g_s), s              | 3.8                                                                               | 29.2                                                                                                                                                                                                                                                  | 11.9                                                                              | 6.7                                                                               | 12.7                                                                                                                                                                                                                                                  | 3.1                                                                                | 3.9                                                                                                                                                                     | 4.5                                                                                                                                                                     | 17.6                                                                                | 5.8                                                                                 | 6.0                                                                                                                                                                     | 8.2                                                                                 |
| Cycle Q Clear(g_c), s        | 3.8                                                                               | 29.2                                                                                                                                                                                                                                                  | 11.9                                                                              | 6.7                                                                               | 12.7                                                                                                                                                                                                                                                  | 3.1                                                                                | 3.9                                                                                                                                                                     | 4.5                                                                                                                                                                     | 17.6                                                                                | 5.8                                                                                 | 6.0                                                                                                                                                                     | 8.2                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                               | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 615                                                                               | 2548                                                                                                                                                                                                                                                  | 791                                                                               | 253                                                                               | 1847                                                                                                                                                                                                                                                  | 573                                                                                | 555                                                                                                                                                                     | 596                                                                                                                                                                     | 266                                                                                 | 308                                                                                 | 323                                                                                                                                                                     | 288                                                                                 |
| V/C Ratio(X)                 | 0.21                                                                              | 0.66                                                                                                                                                                                                                                                  | 0.33                                                                              | 0.63                                                                              | 0.39                                                                                                                                                                                                                                                  | 0.11                                                                               | 0.25                                                                                                                                                                    | 0.26                                                                                                                                                                    | 0.89                                                                                | 0.34                                                                                | 0.32                                                                                                                                                                    | 0.42                                                                                |
| Avail Cap(c_a), veh/h        | 615                                                                               | 2548                                                                                                                                                                                                                                                  | 791                                                                               | 503                                                                               | 1847                                                                                                                                                                                                                                                  | 573                                                                                | 1121                                                                                                                                                                    | 681                                                                                                                                                                     | 304                                                                                 | 574                                                                                 | 341                                                                                                                                                                     | 304                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 11.9                                                                              | 22.4                                                                                                                                                                                                                                                  | 18.0                                                                              | 23.1                                                                              | 28.5                                                                                                                                                                                                                                                  | 25.4                                                                               | 38.2                                                                                                                                                                    | 43.4                                                                                                                                                                    | 48.9                                                                                | 37.5                                                                                | 42.6                                                                                                                                                                    | 43.5                                                                                |
| Incr Delay (d2), s/veh       | 0.8                                                                               | 1.3                                                                                                                                                                                                                                                   | 1.1                                                                               | 2.6                                                                               | 0.6                                                                                                                                                                                                                                                   | 0.4                                                                                | 0.2                                                                                                                                                                     | 0.2                                                                                                                                                                     | 24.3                                                                                | 0.7                                                                                 | 0.6                                                                                                                                                                     | 1.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                                | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.5                                                                               | 11.2                                                                                                                                                                                                                                                  | 4.4                                                                               | 2.8                                                                               | 5.1                                                                                                                                                                                                                                                   | 1.2                                                                                | 1.6                                                                                                                                                                     | 2.0                                                                                                                                                                     | 8.6                                                                                 | 2.5                                                                                 | 2.7                                                                                                                                                                     | 3.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d),s/veh         | 12.7                                                                              | 23.7                                                                                                                                                                                                                                                  | 19.2                                                                              | 25.8                                                                              | 29.1                                                                                                                                                                                                                                                  | 25.8                                                                               | 38.4                                                                                                                                                                    | 43.6                                                                                                                                                                    | 73.2                                                                                | 38.1                                                                                | 43.2                                                                                                                                                                    | 44.5                                                                                |
| LnGrp LOS                    | B                                                                                 | C                                                                                                                                                                                                                                                     | B                                                                                 | C                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                  | D                                                                                                                                                                       | D                                                                                                                                                                       | E                                                                                   | D                                                                                   | D                                                                                                                                                                       | D                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 2060                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 947                                                                                                                                                                                                                                                   |                                                                                    |                                                                                                                                                                         | 527                                                                                                                                                                     |                                                                                     |                                                                                     | 330                                                                                                                                                                     |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 22.5                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 28.3                                                                                                                                                                                                                                                  |                                                                                    |                                                                                                                                                                         | 55.6                                                                                                                                                                    |                                                                                     |                                                                                     | 42.1                                                                                                                                                                    |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                    |                                                                                                                                                                         | E                                                                                                                                                                       |                                                                                     |                                                                                     | D                                                                                                                                                                       |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                  | 7                                                                                                                                                                       | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 13.5                                                                              | 66.9                                                                                                                                                                                                                                                  | 12.5                                                                              | 27.1                                                                              | 30.0                                                                                                                                                                                                                                                  | 50.4                                                                               | 10.8                                                                                                                                                                    | 28.8                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                                | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 25.9                                                                              | 22.2                                                                                                                                                                                                                                                  | 25.9                                                                              | 23.0                                                                              | 25.5                                                                                                                                                                                                                                                  | 22.6                                                                               | 25.9                                                                                                                                                                    | 23.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 8.7                                                                               | 31.2                                                                                                                                                                                                                                                  | 7.8                                                                               | 19.6                                                                              | 5.8                                                                                                                                                                                                                                                   | 14.7                                                                               | 5.9                                                                                                                                                                     | 10.2                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.4                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.6                                                                               | 0.3                                                                                                                                                                                                                                                   | 2.9                                                                                | 0.4                                                                                                                                                                     | 0.9                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 30.1                                                                              |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | C                                                                                 |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

Intersection

Int Delay, s/veh 0.1

| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 15                                                                                | 1895                                                                              | 903                                                                               | 4    | 1                                                                                 | 14   |
| Future Vol, veh/h        | 15                                                                                | 1895                                                                              | 903                                                                               | 4    | 1                                                                                 | 14   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 115                                                                               | -                                                                                 | -                                                                                 | -    | 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                                                                                | 2060                                                                              | 982                                                                               | 4    | 1                                                                                 | 15   |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 986    | 0      | 0 1840 493  |
| Stage 1              | -      | -      | - 984 -     |
| Stage 2              | -      | -      | - 856 -     |
| Critical Hdwy        | 5.34   | -      | - 5.74 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - 6.64 -    |
| Critical Hdwy Stg 2  | -      | -      | - 6.04 -    |
| Follow-up Hdwy       | 3.12   | -      | - 3.82 3.92 |
| Pot Cap-1 Maneuver   | 398    | -      | - 114 446   |
| Stage 1              | -      | -      | - 247 -     |
| Stage 2              | -      | -      | - 341 -     |
| Platoon blocked, %   | -      | -      | -           |
| Mov Cap-1 Maneuver   | 398    | -      | - 109 446   |
| Mov Cap-2 Maneuver   | -      | -      | - 109 -     |
| Stage 1              | -      | -      | - 237 -     |
| Stage 2              | -      | -      | - 341 -     |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0  | 15.2 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 398   | -   | -   | -   | 370   |
| HCM Lane V/C Ratio    | 0.041 | -   | -   | -   | 0.044 |
| HCM Control Delay (s) | 14.4  | -   | -   | -   | 15.2  |
| HCM Lane LOS          | B     | -   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.1   |

HCM 6th TWSC  
3: Gibson Blvd & Buena Vista Dr

07/21/2021

Intersection

Int Delay, s/veh 0.1

| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 14                                                                                | 1910                                                                              | 912                                                                               | 5    | 0                                                                                 | 6    |
| Future Vol, veh/h        | 14                                                                                | 1910                                                                              | 912                                                                               | 5    | 0                                                                                 | 6    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 140                                                                               | -                                                                                 | -                                                                                 | -    | 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                                                                                | 2076                                                                              | 991                                                                               | 5    | 0                                                                                 | 7    |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 996    | 0      | 0 1854 498  |
| Stage 1              | -      | -      | - 994 -     |
| Stage 2              | -      | -      | - 860 -     |
| Critical Hdwy        | 5.34   | -      | - 5.74 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - 6.64 -    |
| Critical Hdwy Stg 2  | -      | -      | - 6.04 -    |
| Follow-up Hdwy       | 3.12   | -      | - 3.82 3.92 |
| Pot Cap-1 Maneuver   | 393    | -      | - 112 443   |
| Stage 1              | -      | -      | - 244 -     |
| Stage 2              | -      | -      | - 339 -     |
| Platoon blocked, %   | -      | -      | -           |
| Mov Cap-1 Maneuver   | 393    | -      | - 108 443   |
| Mov Cap-2 Maneuver   | -      | -      | - 108 -     |
| Stage 1              | -      | -      | - 235 -     |
| Stage 2              | -      | -      | - 339 -     |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0  | 13.2 |
| HCM LOS              |     |    | B    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 393   | -   | -   | -   | 443   |
| HCM Lane V/C Ratio    | 0.039 | -   | -   | -   | 0.015 |
| HCM Control Delay (s) | 14.5  | -   | -   | -   | 13.2  |
| HCM Lane LOS          | B     | -   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0     |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

07/21/2021

Intersection

Int Delay, s/veh 0.2

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1912 | 90   | 7    | 911  | 0    | 12   |
| Future Vol, veh/h        | 1912 | 90   | 7    | 911  | 0    | 12   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 2078 | 98   | 8    | 990  | 0    | 13   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 2176   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 5.34   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 3.12   |
| Pot Cap-1 Maneuver   | -      | -      | 102    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 102    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.3 | 24.8 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 195   | -   | -   | 102   | -   |
| HCM Lane V/C Ratio    | 0.067 | -   | -   | 0.075 | -   |
| HCM Control Delay (s) | 24.8  | -   | -   | 43.1  | -   |
| HCM Lane LOS          | C     | -   | -   | E     | -   |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | 0.2   | -   |

Intersection

Int Delay, s/veh 7.2

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 8    | 17                                                                                | 5                                                                                 | 4    | 90                                                                                | 7                                                                                 |
| Future Vol, veh/h        | 8    | 17                                                                                | 5                                                                                 | 4    | 90                                                                                | 7                                                                                 |
| 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                                                                                 | 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                | 9    | 18                                                                                | 5                                                                                 | 4    | 98                                                                                | 8                                                                                 |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 9      | 0      | 0 43 7        |
| Stage 1              | -      | -      | - 7 -         |
| Stage 2              | -      | -      | - 36 -        |
| 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   | 1611   | -      | - 968 1075    |
| Stage 1              | -      | -      | - 1016 -      |
| Stage 2              | -      | -      | - 986 -       |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1611   | -      | - 962 1075    |
| Mov Cap-2 Maneuver   | -      | -      | - 962 -       |
| Stage 1              | -      | -      | - 1010 -      |
| Stage 2              | -      | -      | - 986 -       |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 2.3 | 0  | 9.1 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 1611  | -   | -   | -   | 962   | 1075  |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | -   | 0.102 | 0.007 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 9.2   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   | 0     |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

07/21/2021

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↔    |      |      | ↔    |      |      | ↔    | ↔    | ↔    | ↔    |      |
| Traffic Vol, veh/h       | 2    | 0    | 2    | 2    | 0    | 7    | 0    | 477  | 1    | 8    | 471  | 5    |
| Future Vol, veh/h        | 2    | 0    | 2    | 2    | 0    | 7    | 0    | 477  | 1    | 8    | 471  | 5    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | 0    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 2    | 0    | 2    | 2    | 0    | 8    | 0    | 518  | 1    | 9    | 512  | 5    |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 792    | 1052 | 259    | 741  | 1053   | 259  | 517    | 0 | 0 | 519  | 0 | 0 |
| Stage 1              | 533    | 533  | -      | 518  | 518    | -    | -      | - | - | -    | - | - |
| Stage 2              | 259    | 519  | -      | 223  | 535    | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.99   | 6.54 | 7.14   | 6.99 | 6.54   | 6.94 | 5.34   | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.67   | 4.02 | 3.92   | 3.67 | 4.02   | 3.32 | 3.12   | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 307    | 225  | 631    | 332  | 225    | 740  | 665    | - | - | 1043 | - | - |
| Stage 1              | 429    | 523  | -      | 493  | 531    | -    | -      | - | - | -    | - | - |
| Stage 2              | 697    | 531  | -      | 722  | 522    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 302    | 223  | 631    | 329  | 223    | 740  | 665    | - | - | 1043 | - | - |
| Mov Cap-2 Maneuver   | 302    | 223  | -      | 329  | 223    | -    | -      | - | - | -    | - | - |
| Stage 1              | 429    | 518  | -      | 493  | 531    | -    | -      | - | - | -    | - | - |
| Stage 2              | 690    | 531  | -      | 713  | 517    | -    | -      | - | - | -    | - | - |

| Approach             | EB   |  | WB   |  | NB |  | SB  |  |
|----------------------|------|--|------|--|----|--|-----|--|
| HCM Control Delay, s | 13.9 |  | 11.3 |  | 0  |  | 0.1 |  |
| HCM LOS              | B    |  | B    |  |    |  |     |  |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|-----|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 665 | -   | -   | 408   | 579   | 1043  | -   | -   |
| HCM Lane V/C Ratio    | -   | -   | -   | 0.011 | 0.017 | 0.008 | -   | -   |
| HCM Control Delay (s) | 0   | -   | -   | 13.9  | 11.3  | 8.5   | -   | -   |
| HCM Lane LOS          | A   | -   | -   | B     | B     | A     | -   | -   |
| HCM 95th %tile Q(veh) | 0   | -   | -   | 0     | 0.1   | 0     | -   | -   |

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4: Walker Rd & Gibson Blvd Performance by movement

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| Movement           | EBT  | EBR  | WBL  | WBT | NBR  | All |
|--------------------|------|------|------|-----|------|-----|
| Denied Del/Veh (s) | 0.0  | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 |
| Total Del/Veh (s)  | 10.8 | 10.9 | 18.4 | 1.7 | 10.3 | 8.0 |

## Intersection: 4: Walker Rd & Gibson Blvd

| Movement              | WB  | NB  |
|-----------------------|-----|-----|
| Directions Served     | L   | R   |
| Maximum Queue (ft)    | 30  | 22  |
| Average Queue (ft)    | 5   | 11  |
| 95th Queue (ft)       | 22  | 28  |
| Link Distance (ft)    |     | 218 |
| Upstream Blk Time (%) |     |     |
| Queuing Penalty (veh) |     |     |
| Storage Bay Dist (ft) | 175 |     |
| Storage Blk Time (%)  |     |     |
| Queuing Penalty (veh) |     |     |

# Timings

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                      |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                       |                                                                                      |  |  |                                                                                      |
|----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     |
| Lane Configurations  |  |    |  |  |    |  |   |   |  |  |   |
| Traffic Volume (vph) | 122                                                                               | 749                                                                                                                                                                                                                                                   | 327                                                                               | 326                                                                               | 1927                                                                                                                                                                                                                                                  | 117                                                                               | 263                                                                                                                                                                     | 172                                                                                                                                                                     | 256                                                                                 | 93                                                                                  | 274                                                                                                                                                                     |
| Future Volume (vph)  | 122                                                                               | 749                                                                                                                                                                                                                                                   | 327                                                                               | 326                                                                               | 1927                                                                                                                                                                                                                                                  | 117                                                                               | 263                                                                                                                                                                     | 172                                                                                                                                                                     | 256                                                                                 | 93                                                                                  | 274                                                                                                                                                                     |
| Turn Type            | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                                                                                                                   | NA                                                                                                                                                                      | Perm                                                                                | pm+pt                                                                               | NA                                                                                                                                                                      |
| Protected Phases     | 5                                                                                 | 2                                                                                                                                                                                                                                                     |                                                                                   | 1                                                                                 | 6                                                                                                                                                                                                                                                     |                                                                                   | 7                                                                                                                                                                       | 4                                                                                                                                                                       |                                                                                     | 3                                                                                   | 8                                                                                                                                                                       |
| Permitted Phases     | 2                                                                                 |                                                                                                                                                                                                                                                       | 2                                                                                 | 6                                                                                 |                                                                                                                                                                                                                                                       | 6                                                                                 | 4                                                                                                                                                                       |                                                                                                                                                                         | 4                                                                                   | 8                                                                                   |                                                                                                                                                                         |
| Detector Phase       | 5                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 1                                                                                 | 6                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 4                                                                                                                                                                       | 4                                                                                   | 3                                                                                   | 8                                                                                                                                                                       |
| Switch Phase         |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                                                                                                                     | 16.0                                                                                                                                                                    | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                                                                                                    |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                                                                                                                    | 25.0                                                                                                                                                                    | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                                                                                                    |
| Total Split (s)      | 33.0                                                                              | 32.0                                                                                                                                                                                                                                                  | 32.0                                                                              | 32.5                                                                              | 31.5                                                                                                                                                                                                                                                  | 31.5                                                                              | 32.5                                                                                                                                                                    | 33.0                                                                                                                                                                    | 33.0                                                                                | 32.5                                                                                | 33.0                                                                                                                                                                    |
| Total Split (%)      | 25.4%                                                                             | 24.6%                                                                                                                                                                                                                                                 | 24.6%                                                                             | 25.0%                                                                             | 24.2%                                                                                                                                                                                                                                                 | 24.2%                                                                             | 25.0%                                                                                                                                                                   | 25.4%                                                                                                                                                                   | 25.4%                                                                               | 25.0%                                                                               | 25.4%                                                                                                                                                                   |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                                                                                                                     | 4.0                                                                                                                                                                     | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                                                                                                     |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                                                                                                                     | 3.0                                                                                                                                                                     | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                                                                                                     |
| 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)  | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                                                                                                     |
| Lead/Lag             | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                                                                                                                    | Lag                                                                                                                                                                     | Lag                                                                                 | Lead                                                                                | Lag                                                                                                                                                                     |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                                                                                                                     | Yes                                                                                                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                                                                                                     |
| Recall Mode          | Max                                                                               | C-Max                                                                                                                                                                                                                                                 | C-Max                                                                             | None                                                                              | Max                                                                                                                                                                                                                                                   | Max                                                                               | None                                                                                                                                                                    | None                                                                                                                                                                    | None                                                                                | None                                                                                | None                                                                                                                                                                    |
| Act Effct Green (s)  | 78.3                                                                              | 44.9                                                                                                                                                                                                                                                  | 44.9                                                                              | 53.6                                                                              | 24.5                                                                                                                                                                                                                                                  | 24.5                                                                              | 41.4                                                                                                                                                                    | 24.7                                                                                                                                                                    | 24.7                                                                                | 34.6                                                                                | 21.3                                                                                                                                                                    |
| Actuated g/C Ratio   | 0.60                                                                              | 0.35                                                                                                                                                                                                                                                  | 0.35                                                                              | 0.41                                                                              | 0.19                                                                                                                                                                                                                                                  | 0.19                                                                              | 0.32                                                                                                                                                                    | 0.19                                                                                                                                                                    | 0.19                                                                                | 0.27                                                                                | 0.16                                                                                                                                                                    |
| v/c Ratio            | 0.19                                                                              | 0.46                                                                                                                                                                                                                                                  | 0.46                                                                              | 0.72                                                                              | 2.19                                                                                                                                                                                                                                                  | 0.33                                                                              | 0.54                                                                                                                                                                    | 0.28                                                                                                                                                                    | 0.53                                                                                | 0.28                                                                                | 0.77                                                                                                                                                                    |
| Control Delay        | 13.1                                                                              | 36.7                                                                                                                                                                                                                                                  | 6.1                                                                               | 29.0                                                                              | 563.4                                                                                                                                                                                                                                                 | 13.7                                                                              | 35.1                                                                                                                                                                    | 45.2                                                                                                                                                                    | 8.5                                                                                 | 31.8                                                                                | 50.8                                                                                                                                                                    |
| 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          | 13.1                                                                              | 36.7                                                                                                                                                                                                                                                  | 6.1                                                                               | 29.0                                                                              | 563.4                                                                                                                                                                                                                                                 | 13.7                                                                              | 35.1                                                                                                                                                                    | 45.2                                                                                                                                                                    | 8.5                                                                                 | 31.8                                                                                | 50.8                                                                                                                                                                    |
| LOS                  | B                                                                                 | D                                                                                                                                                                                                                                                     | A                                                                                 | C                                                                                 | F                                                                                                                                                                                                                                                     | B                                                                                 | D                                                                                                                                                                       | D                                                                                                                                                                       | A                                                                                   | C                                                                                   | D                                                                                                                                                                       |
| Approach Delay       |                                                                                   | 25.9                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 462.9                                                                                                                                                                                                                                                 |                                                                                   |                                                                                                                                                                         | 27.8                                                                                                                                                                    |                                                                                     |                                                                                     | 47.5                                                                                                                                                                    |
| Approach LOS         |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | F                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | C                                                                                                                                                                       |                                                                                     |                                                                                     | D                                                                                                                                                                       |

### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.19

Intersection Signal Delay: 244.7

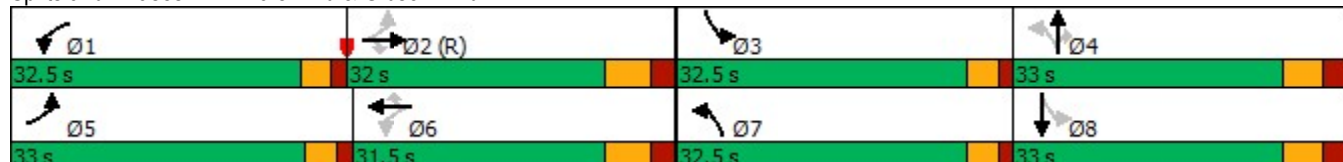
Intersection LOS: F

Intersection Capacity Utilization 84.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



## Queues

## 1: Yale Blvd &amp; Gibson Blvd

07/21/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 133  | 814  | 355  | 354  | 2095  | 127  | 286  | 187  | 278  | 101  | 478  |
| v/c Ratio               | 0.19 | 0.46 | 0.46 | 0.72 | 2.19  | 0.33 | 0.54 | 0.28 | 0.53 | 0.28 | 0.77 |
| Control Delay           | 13.1 | 36.7 | 6.1  | 29.0 | 563.4 | 13.7 | 35.1 | 45.2 | 8.5  | 31.8 | 50.8 |
| 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             | 13.1 | 36.7 | 6.1  | 29.0 | 563.4 | 13.7 | 35.1 | 45.2 | 8.5  | 31.8 | 50.8 |
| Queue Length 50th (ft)  | 45   | 194  | 0    | 151  | ~1036 | 13   | 91   | 72   | 0    | 61   | 170  |
| Queue Length 95th (ft)  | 91   | 287  | 84   | 240  | #1130 | 69   | 113  | 101  | 72   | 94   | 218  |
| Internal Link Dist (ft) |      | 278  |      |      | 518   |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |       | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 702  | 1756 | 779  | 533  | 958   | 386  | 822  | 741  | 552  | 512  | 743  |
| 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       | 0.19 | 0.46 | 0.46 | 0.66 | 2.19  | 0.33 | 0.35 | 0.25 | 0.50 | 0.20 | 0.64 |

## Intersection Summary

~ 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.

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                     |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                    | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |   |  |
| Traffic Volume (veh/h)       | 122                                                                               | 749                                                                                                                                                                                                                                                   | 327                                                                               | 326                                                                               | 1927                                                                                                                                                                                                                                                  | 117                                                                               | 263                                                                                                                                                                    | 172                                                                                                                                                                     | 256                                                                                 | 93                                                                                  | 274                                                                                                                                                                     | 166                                                                                 |
| Future Volume (veh/h)        | 122                                                                               | 749                                                                                                                                                                                                                                                   | 327                                                                               | 326                                                                               | 1927                                                                                                                                                                                                                                                  | 117                                                                               | 263                                                                                                                                                                    | 172                                                                                                                                                                     | 256                                                                                 | 93                                                                                  | 274                                                                                                                                                                     | 166                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                                                                                                      | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                   |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                   | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                                                                                                        | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                                                                                                                   | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                    | 1870                                                                                |
| Adj Flow Rate, veh/h         | 133                                                                               | 814                                                                                                                                                                                                                                                   | 355                                                                               | 354                                                                               | 2095                                                                                                                                                                                                                                                  | 127                                                                               | 286                                                                                                                                                                    | 187                                                                                                                                                                     | 278                                                                                 | 101                                                                                 | 298                                                                                                                                                                     | 180                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                                                                                                                   | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                                                                                                      | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                       | 2                                                                                   |
| Cap, veh/h                   | 446                                                                               | 2161                                                                                                                                                                                                                                                  | 671                                                                               | 466                                                                               | 1787                                                                                                                                                                                                                                                  | 555                                                                               | 465                                                                                                                                                                    | 677                                                                                                                                                                     | 302                                                                                 | 303                                                                                 | 355                                                                                                                                                                     | 209                                                                                 |
| Arrive On Green              | 0.22                                                                              | 0.42                                                                                                                                                                                                                                                  | 0.42                                                                              | 0.15                                                                              | 0.35                                                                                                                                                                                                                                                  | 0.35                                                                              | 0.09                                                                                                                                                                   | 0.19                                                                                                                                                                    | 0.19                                                                                | 0.06                                                                                | 0.17                                                                                                                                                                    | 0.17                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 3456                                                                                                                                                                   | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 2153                                                                                                                                                                    | 1266                                                                                |
| Grp Volume(v), veh/h         | 133                                                                               | 814                                                                                                                                                                                                                                                   | 355                                                                               | 354                                                                               | 2095                                                                                                                                                                                                                                                  | 127                                                                               | 286                                                                                                                                                                    | 187                                                                                                                                                                     | 278                                                                                 | 101                                                                                 | 245                                                                                                                                                                     | 233                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1728                                                                                                                                                                   | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1642                                                                                |
| Q Serve(g_s), s              | 4.4                                                                               | 14.2                                                                                                                                                                                                                                                  | 21.6                                                                              | 16.2                                                                              | 45.5                                                                                                                                                                                                                                                  | 7.4                                                                               | 8.7                                                                                                                                                                    | 5.8                                                                                                                                                                     | 22.4                                                                                | 6.0                                                                                 | 17.3                                                                                                                                                                    | 18.0                                                                                |
| Cycle Q Clear(g_c), s        | 4.4                                                                               | 14.2                                                                                                                                                                                                                                                  | 21.6                                                                              | 16.2                                                                              | 45.5                                                                                                                                                                                                                                                  | 7.4                                                                               | 8.7                                                                                                                                                                    | 5.8                                                                                                                                                                     | 22.4                                                                                | 6.0                                                                                 | 17.3                                                                                                                                                                    | 18.0                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                   |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 0.77                                                                                |
| Lane Grp Cap(c), veh/h       | 446                                                                               | 2161                                                                                                                                                                                                                                                  | 671                                                                               | 466                                                                               | 1787                                                                                                                                                                                                                                                  | 555                                                                               | 465                                                                                                                                                                    | 677                                                                                                                                                                     | 302                                                                                 | 303                                                                                 | 293                                                                                                                                                                     | 271                                                                                 |
| V/C Ratio(X)                 | 0.30                                                                              | 0.38                                                                                                                                                                                                                                                  | 0.53                                                                              | 0.76                                                                              | 1.17                                                                                                                                                                                                                                                  | 0.23                                                                              | 0.62                                                                                                                                                                   | 0.28                                                                                                                                                                    | 0.92                                                                                | 0.33                                                                                | 0.83                                                                                                                                                                    | 0.86                                                                                |
| Avail Cap(c_a), veh/h        | 446                                                                               | 2161                                                                                                                                                                                                                                                  | 671                                                                               | 590                                                                               | 1787                                                                                                                                                                                                                                                  | 555                                                                               | 903                                                                                                                                                                    | 711                                                                                                                                                                     | 317                                                                                 | 574                                                                                 | 355                                                                                                                                                                     | 328                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                   | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                   | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 20.8                                                                              | 25.7                                                                                                                                                                                                                                                  | 27.9                                                                              | 20.9                                                                              | 42.2                                                                                                                                                                                                                                                  | 29.9                                                                              | 40.4                                                                                                                                                                   | 45.0                                                                                                                                                                    | 51.7                                                                                | 41.1                                                                                | 52.6                                                                                                                                                                    | 52.8                                                                                |
| Incr Delay (d2), s/veh       | 1.7                                                                               | 0.5                                                                                                                                                                                                                                                   | 3.0                                                                               | 4.4                                                                               | 83.8                                                                                                                                                                                                                                                  | 1.0                                                                               | 1.3                                                                                                                                                                    | 0.2                                                                                                                                                                     | 30.3                                                                                | 0.6                                                                                 | 13.4                                                                                                                                                                    | 17.6                                                                                |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                                                                                                                    | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.8                                                                               | 5.7                                                                                                                                                                                                                                                   | 8.6                                                                               | 7.0                                                                               | 32.1                                                                                                                                                                                                                                                  | 2.9                                                                               | 3.7                                                                                                                                                                    | 2.6                                                                                                                                                                     | 11.3                                                                                | 2.7                                                                                 | 8.7                                                                                                                                                                     | 8.6                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d),s/veh         | 22.5                                                                              | 26.2                                                                                                                                                                                                                                                  | 30.8                                                                              | 25.3                                                                              | 126.0                                                                                                                                                                                                                                                 | 30.8                                                                              | 41.8                                                                                                                                                                   | 45.2                                                                                                                                                                    | 82.0                                                                                | 41.7                                                                                | 65.9                                                                                                                                                                    | 70.4                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                 | C                                                                                 | F                                                                                                                                                                                                                                                     | C                                                                                 | D                                                                                                                                                                      | D                                                                                                                                                                       | F                                                                                   | D                                                                                   | E                                                                                                                                                                       | E                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 1302                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 2576                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                        | 751                                                                                                                                                                     |                                                                                     |                                                                                     | 579                                                                                                                                                                     |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 27.1                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 107.5                                                                                                                                                                                                                                                 |                                                                                   |                                                                                                                                                                        | 57.5                                                                                                                                                                    |                                                                                     |                                                                                     | 63.5                                                                                                                                                                    |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | F                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                        | E                                                                                                                                                                       |                                                                                     |                                                                                     | E                                                                                                                                                                       |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                      | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 23.5                                                                              | 62.0                                                                                                                                                                                                                                                  | 12.7                                                                              | 31.8                                                                              | 33.0                                                                                                                                                                                                                                                  | 52.5                                                                              | 16.0                                                                                                                                                                   | 28.5                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                    | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 28.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 28.0                                                                              | 26.0                                                                              | 28.5                                                                                                                                                                                                                                                  | 24.5                                                                              | 28.0                                                                                                                                                                   | 26.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 18.2                                                                              | 23.6                                                                                                                                                                                                                                                  | 8.0                                                                               | 24.4                                                                              | 6.4                                                                                                                                                                                                                                                   | 47.5                                                                              | 10.7                                                                                                                                                                   | 20.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.8                                                                               | 0.9                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.4                                                                               | 0.3                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.9                                                                                                                                                                    | 1.4                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 75.3                                                                              |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | E                                                                                 |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR                                                                               | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |  |  |      |
| Traffic Vol, veh/h       | 28                                                                                | 1194                                                                              | 2335                                                                              | 20                                                                                | 5                                                                                 | 24   |
| Future Vol, veh/h        | 28                                                                                | 1194                                                                              | 2335                                                                              | 20                                                                                | 5                                                                                 | 24   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None |
| Storage Length           | 115                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 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                                                                                | 1298                                                                              | 2538                                                                              | 22                                                                                | 5                                                                                 | 26   |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 2560   | 0      | 0 3128 1280 |
| Stage 1              | -      | -      | - 2549 -    |
| Stage 2              | -      | -      | - 579 -     |
| Critical Hdwy        | 5.34   | -      | - 5.74 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - 6.64 -    |
| Critical Hdwy Stg 2  | -      | -      | - 6.04 -    |
| Follow-up Hdwy       | 3.12   | -      | - 3.82 3.92 |
| Pot Cap-1 Maneuver   | 64     | -      | - 22 134    |
| Stage 1              | -      | -      | - 25 -      |
| Stage 2              | -      | -      | - 477 -     |
| Platoon blocked, %   | -      | -      | -           |
| Mov Cap-1 Maneuver   | 64     | -      | - 12 134    |
| Mov Cap-2 Maneuver   | -      | -      | - 12 -      |
| Stage 1              | -      | -      | - 13 -      |
| Stage 2              | -      | -      | - 477 -     |

| Approach             | EB  | WB | SB    |
|----------------------|-----|----|-------|
| HCM Control Delay, s | 2.4 | 0  | 164.7 |
| HCM LOS              |     |    | F     |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 64    | -   | -   | -   | 49    |
| HCM Lane V/C Ratio    | 0.476 | -   | -   | -   | 0.643 |
| HCM Control Delay (s) | 104.4 | -   | -   | -   | 164.7 |
| HCM Lane LOS          | F     | -   | -   | -   | F     |
| HCM 95th %tile Q(veh) | 1.9   | -   | -   | -   | 2.5   |

HCM 6th TWSC  
3: Gibson Blvd & Buena Vista Dr

07/21/2021

Intersection

Int Delay, s/veh 1.4

Movement EBL EBT WBT WBR SBL SBR

|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |  |  |  |  |      |
| Traffic Vol, veh/h       | 30                                                                                | 1220                                                                              | 2352                                                                              | 7                                                                                 | 2                                                                                 | 15   |
| Future Vol, veh/h        | 30                                                                                | 1220                                                                              | 2352                                                                              | 7                                                                                 | 2                                                                                 | 15   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None |
| Storage Length           | 140                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 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                                                                                | 1326                                                                              | 2557                                                                              | 8                                                                                 | 2                                                                                 | 16   |

Major/Minor Major1 Major2 Minor2

|                      |      |   |   |   |      |      |
|----------------------|------|---|---|---|------|------|
| Conflicting Flow All | 2565 | 0 | - | 0 | 3157 | 1283 |
| Stage 1              | -    | - | - | - | 2561 | -    |
| Stage 2              | -    | - | - | - | 596  | -    |
| Critical Hdwy        | 5.34 | - | - | - | 5.74 | 7.14 |
| Critical Hdwy Stg 1  | -    | - | - | - | 6.64 | -    |
| Critical Hdwy Stg 2  | -    | - | - | - | 6.04 | -    |
| Follow-up Hdwy       | 3.12 | - | - | - | 3.82 | 3.92 |
| Pot Cap-1 Maneuver   | 64   | - | - | - | 21   | 134  |
| Stage 1              | -    | - | - | - | 24   | -    |
| Stage 2              | -    | - | - | - | 468  | -    |
| Platoon blocked, %   | -    | - | - | - | -    | -    |
| Mov Cap-1 Maneuver   | 64   | - | - | - | 10   | 134  |
| Mov Cap-2 Maneuver   | -    | - | - | - | 10   | -    |
| Stage 1              | -    | - | - | - | 12   | -    |
| Stage 2              | -    | - | - | - | 468  | -    |

Approach EB WB SB

|                      |     |   |     |
|----------------------|-----|---|-----|
| HCM Control Delay, s | 2.6 | 0 | 103 |
| HCM LOS              |     |   | F   |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 64    | - | - | - | 54    |
| HCM Lane V/C Ratio    | 0.51  | - | - | - | 0.342 |
| HCM Control Delay (s) | 109.2 | - | - | - | 103   |
| HCM Lane LOS          | F     | - | - | - | F     |
| HCM 95th %tile Q(veh) | 2     | - | - | - | 1.2   |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

07/21/2021

Intersection

Int Delay, s/veh 0.2

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1222 | 46   | 16   | 2351 | 0    | 28   |
| Future Vol, veh/h        | 1222 | 46   | 16   | 2351 | 0    | 28   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 1328 | 50   | 17   | 2555 | 0    | 30   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1378   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 5.34   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.12   | -      |
| Pot Cap-1 Maneuver   | -      | 256    | 0      |
| Stage 1              | -      | -      | 0      |
| Stage 2              | -      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 256    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 16.4 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 346   | -   | -   | 256   | -   |
| HCM Lane V/C Ratio    | 0.088 | -   | -   | 0.068 | -   |
| HCM Control Delay (s) | 16.4  | -   | -   | 20.1  | -   |
| HCM Lane LOS          | C     | -   | -   | C     | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | 0.2   | -   |

Intersection

Int Delay, s/veh 4.3

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 19   | 24                                                                                | 52                                                                                | 9    | 40                                                                                | 22                                                                                |
| Future Vol, veh/h        | 19   | 24                                                                                | 52                                                                                | 9    | 40                                                                                | 22                                                                                |
| 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                                                                                 | 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   | 26                                                                                | 57                                                                                | 10   | 43                                                                                | 24                                                                                |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 67     | 0      | 0 130 62      |
| Stage 1              | -      | -      | - 62 -        |
| Stage 2              | -      | -      | - 68 -        |
| 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   | 1535   | -      | - 864 1003    |
| Stage 1              | -      | -      | - 961 -       |
| Stage 2              | -      | -      | - 955 -       |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1535   | -      | - 852 1003    |
| Mov Cap-2 Maneuver   | -      | -      | - 852 -       |
| Stage 1              | -      | -      | - 948 -       |
| Stage 2              | -      | -      | - 955 -       |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.3 | 0  | 9.2 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 1535  | -   | -   | -   | 852   | 1003  |
| HCM Lane V/C Ratio    | 0.013 | -   | -   | -   | 0.051 | 0.024 |
| HCM Control Delay (s) | 7.4   | 0   | -   | -   | 9.5   | 8.7   |
| HCM Lane LOS          | A     | A   | -   | -   | A     | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.2   | 0.1   |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

07/21/2021

| Intersection             |        |      |        |       |        |       |        |      |      |      |      |      |
|--------------------------|--------|------|--------|-------|--------|-------|--------|------|------|------|------|------|
| Int Delay, s/veh         | 0.7    |      |        |       |        |       |        |      |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL   | WBT    | WBR   | NBL    | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↔    |        |       | ↔      |       |        | ↔    | ↔    | ↔    | ↔    |      |
| Traffic Vol, veh/h       | 3      | 2    | 12     | 7     | 1      | 16    | 2      | 671  | 3    | 33   | 886  | 8    |
| Future Vol, veh/h        | 3      | 2    | 12     | 7     | 1      | 16    | 2      | 671  | 3    | 33   | 886  | 8    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0     | 0      | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop | Stop   | Stop  | Stop   | Stop  | Free   | Free | Free | Free | Free | Free |
| RT Channelized           | -      | -    | None   | -     | -      | None  | -      | -    | None | -    | -    | None |
| Storage Length           | -      | -    | -      | -     | -      | -     | -      | -    | 0    | 60   | -    | -    |
| Veh in Median Storage, # | -      | 0    | -      | -     | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Grade, %                 | -      | 0    | -      | -     | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92    | 92     | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2     | 2      | 2     | 2      | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3      | 2    | 13     | 8     | 1      | 17    | 2      | 729  | 3    | 36   | 963  | 9    |
| Major/Minor              | Minor2 |      | Minor1 |       | Major1 |       | Major2 |      |      |      |      |      |
| Conflicting Flow All     | 1409   | 1776 | 486    | 1191  | 1777   | 365   | 972    | 0    | 0    | 732  | 0    | 0    |
| Stage 1                  | 1040   | 1040 | -      | 733   | 733    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 369    | 736  | -      | 458   | 1044   | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy            | 6.99   | 6.54 | 7.14   | 6.99  | 6.54   | 6.94  | 5.34   | -    | -    | 4.14 | -    | -    |
| Critical Hdwy Stg 1      | 7.34   | 5.54 | -      | 6.54  | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54 | -      | 6.74  | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Follow-up Hdwy           | 3.67   | 4.02 | 3.92   | 3.67  | 4.02   | 3.32  | 3.12   | -    | -    | 2.22 | -    | -    |
| Pot Cap-1 Maneuver       | 120    | 82   | 451    | 168   | 82     | 632   | 404    | -    | -    | 868  | -    | -    |
| Stage 1                  | 191    | 306  | -      | 368   | 424    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 602    | 423  | -      | 521   | 304    | -     | -      | -    | -    | -    | -    | -    |
| Platoon blocked, %       |        |      |        |       |        |       |        | -    | -    | -    | -    | -    |
| Mov Cap-1 Maneuver       | 111    | 78   | 451    | 154   | 78     | 632   | 404    | -    | -    | 868  | -    | -    |
| Mov Cap-2 Maneuver       | 111    | 78   | -      | 154   | 78     | -     | -      | -    | -    | -    | -    | -    |
| Stage 1                  | 189    | 293  | -      | 365   | 421    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 579    | 420  | -      | 481   | 292    | -     | -      | -    | -    | -    | -    | -    |
| Approach                 | EB     |      | WB     |       | NB     |       | SB     |      |      |      |      |      |
| HCM Control Delay, s     | 23.4   |      | 18.8   |       | 0.1    |       | 0.3    |      |      |      |      |      |
| HCM LOS                  | C      |      | C      |       |        |       |        |      |      |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | NBR    | EBLn1 | WBLn1  | SBL   | SBT    | SBR  |      |      |      |      |
| Capacity (veh/h)         | 404    | -    | -      | 214   | 287    | 868   | -      | -    |      |      |      |      |
| HCM Lane V/C Ratio       | 0.005  | -    | -      | 0.086 | 0.091  | 0.041 | -      | -    |      |      |      |      |
| HCM Control Delay (s)    | 14     | 0.1  | -      | 23.4  | 18.8   | 9.3   | -      | -    |      |      |      |      |
| HCM Lane LOS             | B      | A    | -      | C     | C      | A     | -      | -    |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | 0.3   | 0.3    | 0.1   | -      | -    |      |      |      |      |

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4: Walker Rd & Gibson Blvd Performance by movement

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| Movement           | EBT | EBR | WBL  | WBT | NBR | All |
|--------------------|-----|-----|------|-----|-----|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s)  | 4.7 | 4.4 | 19.4 | 2.4 | 7.0 | 3.6 |

## Intersection: 4: Walker Rd & Gibson Blvd

| Movement              | WB  | NB  |
|-----------------------|-----|-----|
| Directions Served     | L   | R   |
| Maximum Queue (ft)    | 49  | 44  |
| Average Queue (ft)    | 9   | 13  |
| 95th Queue (ft)       | 34  | 33  |
| Link Distance (ft)    |     | 218 |
| Upstream Blk Time (%) |     |     |
| Queuing Penalty (veh) |     |     |
| Storage Bay Dist (ft) | 175 |     |
| Storage Blk Time (%)  |     |     |
| Queuing Penalty (veh) |     |     |

# Timings

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                      |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                       |                                                                                      |  |  |                                                                                      |
|----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     |
| Lane Configurations  |  |    |  |  |    |  |   |   |  |  |   |
| Traffic Volume (vph) | 128                                                                               | 1673                                                                                                                                                                                                                                                  | 263                                                                               | 161                                                                               | 727                                                                                                                                                                                                                                                   | 60                                                                                | 139                                                                                                                                                                     | 153                                                                                                                                                                     | 237                                                                                 | 106                                                                                 | 103                                                                                                                                                                     |
| Future Volume (vph)  | 128                                                                               | 1673                                                                                                                                                                                                                                                  | 263                                                                               | 161                                                                               | 727                                                                                                                                                                                                                                                   | 60                                                                                | 139                                                                                                                                                                     | 153                                                                                                                                                                     | 237                                                                                 | 106                                                                                 | 103                                                                                                                                                                     |
| Turn Type            | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                                                                                                                   | NA                                                                                                                                                                      | Perm                                                                                | pm+pt                                                                               | NA                                                                                                                                                                      |
| Protected Phases     | 5                                                                                 | 2                                                                                                                                                                                                                                                     |                                                                                   | 1                                                                                 | 6                                                                                                                                                                                                                                                     |                                                                                   | 7                                                                                                                                                                       | 4                                                                                                                                                                       |                                                                                     | 3                                                                                   | 8                                                                                                                                                                       |
| Permitted Phases     | 2                                                                                 |                                                                                                                                                                                                                                                       | 2                                                                                 | 6                                                                                 |                                                                                                                                                                                                                                                       | 6                                                                                 | 4                                                                                                                                                                       |                                                                                                                                                                         | 4                                                                                   | 8                                                                                   |                                                                                                                                                                         |
| Detector Phase       | 5                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 1                                                                                 | 6                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 4                                                                                                                                                                       | 4                                                                                   | 3                                                                                   | 8                                                                                                                                                                       |
| Switch Phase         |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                                                                                                                     | 16.0                                                                                                                                                                    | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                                                                                                    |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                                                                                                                    | 25.0                                                                                                                                                                    | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                                                                                                    |
| Total Split (s)      | 30.0                                                                              | 29.2                                                                                                                                                                                                                                                  | 29.2                                                                              | 30.4                                                                              | 29.6                                                                                                                                                                                                                                                  | 29.6                                                                              | 30.4                                                                                                                                                                    | 30.0                                                                                                                                                                    | 30.0                                                                                | 30.4                                                                                | 30.0                                                                                                                                                                    |
| Total Split (%)      | 25.0%                                                                             | 24.3%                                                                                                                                                                                                                                                 | 24.3%                                                                             | 25.3%                                                                             | 24.7%                                                                                                                                                                                                                                                 | 24.7%                                                                             | 25.3%                                                                                                                                                                   | 25.0%                                                                                                                                                                   | 25.0%                                                                               | 25.3%                                                                               | 25.0%                                                                                                                                                                   |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                                                                                                                     | 4.0                                                                                                                                                                     | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                                                                                                     |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                                                                                                                     | 3.0                                                                                                                                                                     | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                                                                                                     |
| 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)  | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                                                                                                     |
| Lead/Lag             | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                                                                                                                    | Lag                                                                                                                                                                     | Lag                                                                                 | Lead                                                                                | Lag                                                                                                                                                                     |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                                                                                                                     | Yes                                                                                                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                                                                                                     |
| Recall Mode          | Max                                                                               | C-Max                                                                                                                                                                                                                                                 | C-Max                                                                             | None                                                                              | C-Max                                                                                                                                                                                                                                                 | C-Max                                                                             | None                                                                                                                                                                    | None                                                                                                                                                                    | None                                                                                | None                                                                                | None                                                                                                                                                                    |
| Act Effct Green (s)  | 76.4                                                                              | 56.7                                                                                                                                                                                                                                                  | 56.7                                                                              | 37.8                                                                              | 22.6                                                                                                                                                                                                                                                  | 22.6                                                                              | 28.0                                                                                                                                                                    | 16.1                                                                                                                                                                    | 16.1                                                                                | 32.2                                                                                | 18.2                                                                                                                                                                    |
| Actuated g/C Ratio   | 0.64                                                                              | 0.47                                                                                                                                                                                                                                                  | 0.47                                                                              | 0.32                                                                              | 0.19                                                                                                                                                                                                                                                  | 0.19                                                                              | 0.23                                                                                                                                                                    | 0.13                                                                                                                                                                    | 0.13                                                                                | 0.27                                                                                | 0.15                                                                                                                                                                    |
| v/c Ratio            | 0.18                                                                              | 0.76                                                                                                                                                                                                                                                  | 0.34                                                                              | 0.68                                                                              | 0.83                                                                                                                                                                                                                                                  | 0.17                                                                              | 0.25                                                                                                                                                                    | 0.35                                                                                                                                                                    | 0.59                                                                                | 0.33                                                                                | 0.40                                                                                                                                                                    |
| Control Delay        | 9.8                                                                               | 29.8                                                                                                                                                                                                                                                  | 10.3                                                                              | 41.6                                                                              | 55.1                                                                                                                                                                                                                                                  | 1.4                                                                               | 32.4                                                                                                                                                                    | 49.5                                                                                                                                                                    | 11.8                                                                                | 34.4                                                                                | 22.4                                                                                                                                                                    |
| 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          | 9.8                                                                               | 29.8                                                                                                                                                                                                                                                  | 10.3                                                                              | 41.6                                                                              | 55.1                                                                                                                                                                                                                                                  | 1.4                                                                               | 32.4                                                                                                                                                                    | 49.5                                                                                                                                                                    | 11.8                                                                                | 34.4                                                                                | 22.4                                                                                                                                                                    |
| LOS                  | A                                                                                 | C                                                                                                                                                                                                                                                     | B                                                                                 | D                                                                                 | E                                                                                                                                                                                                                                                     | A                                                                                 | C                                                                                                                                                                       | D                                                                                                                                                                       | B                                                                                   | C                                                                                   | C                                                                                                                                                                       |
| Approach Delay       |                                                                                   | 26.1                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 49.4                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 28.1                                                                                                                                                                    |                                                                                     |                                                                                     | 26.3                                                                                                                                                                    |
| Approach LOS         |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | D                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | C                                                                                                                                                                       |                                                                                     |                                                                                     | C                                                                                                                                                                       |

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 32.1

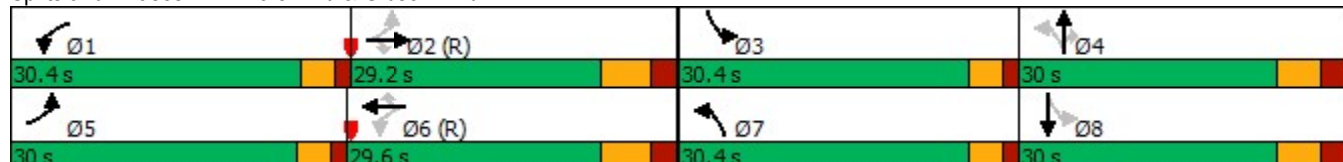
Intersection LOS: C

Intersection Capacity Utilization 79.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



## Queues

## 1: Yale Blvd &amp; Gibson Blvd

07/21/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 139  | 1818 | 286  | 175  | 790  | 65   | 151  | 166  | 258  | 115  | 245  |
| v/c Ratio               | 0.18 | 0.76 | 0.34 | 0.68 | 0.83 | 0.17 | 0.25 | 0.35 | 0.59 | 0.33 | 0.40 |
| Control Delay           | 9.8  | 29.8 | 10.3 | 41.6 | 55.1 | 1.4  | 32.4 | 49.5 | 11.8 | 34.4 | 22.4 |
| 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             | 9.8  | 29.8 | 10.3 | 41.6 | 55.1 | 1.4  | 32.4 | 49.5 | 11.8 | 34.4 | 22.4 |
| Queue Length 50th (ft)  | 39   | 410  | 51   | 70   | 217  | 0    | 44   | 62   | 0    | 68   | 40   |
| Queue Length 95th (ft)  | 74   | #566 | 132  | 133  | 267  | 4    | 68   | 97   | 78   | 112  | 78   |
| Internal Link Dist (ft) |      | 278  |      |      | 518  |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |      | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 758  | 2401 | 836  | 451  | 957  | 393  | 898  | 678  | 511  | 459  | 731  |
| 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       | 0.18 | 0.76 | 0.34 | 0.39 | 0.83 | 0.17 | 0.17 | 0.24 | 0.50 | 0.25 | 0.34 |

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |   |                                                                                       |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                                | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |   |  |
| Traffic Volume (veh/h)       | 128                                                                               | 1673                                                                                                                                                                                                                                                  | 263                                                                               | 161                                                                               | 727                                                                                                                                                                                                                                                   | 60                                                                                 | 139                                                                                                                                                                     | 153                                                                                                                                                                     | 237                                                                                 | 106                                                                                 | 103                                                                                                                                                                     | 122                                                                                 |
| Future Volume (veh/h)        | 128                                                                               | 1673                                                                                                                                                                                                                                                  | 263                                                                               | 161                                                                               | 727                                                                                                                                                                                                                                                   | 60                                                                                 | 139                                                                                                                                                                     | 153                                                                                                                                                                     | 237                                                                                 | 106                                                                                 | 103                                                                                                                                                                     | 122                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                  | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                               | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                    |                                                                                                                                                                         | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                               | 1870                                                                                                                                                                    | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                    | 1870                                                                                |
| Adj Flow Rate, veh/h         | 139                                                                               | 1818                                                                                                                                                                                                                                                  | 286                                                                               | 175                                                                               | 790                                                                                                                                                                                                                                                   | 65                                                                                 | 151                                                                                                                                                                     | 166                                                                                                                                                                     | 258                                                                                 | 115                                                                                 | 112                                                                                                                                                                     | 133                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                               | 0.92                                                                                                                                                                    | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                  | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                       | 2                                                                                   |
| Cap, veh/h                   | 585                                                                               | 2433                                                                                                                                                                                                                                                  | 755                                                                               | 243                                                                               | 1767                                                                                                                                                                                                                                                  | 549                                                                                | 577                                                                                                                                                                     | 637                                                                                                                                                                     | 284                                                                                 | 319                                                                                 | 346                                                                                                                                                                     | 308                                                                                 |
| Arrive On Green              | 0.21                                                                              | 0.48                                                                                                                                                                                                                                                  | 0.48                                                                              | 0.08                                                                              | 0.35                                                                                                                                                                                                                                                  | 0.35                                                                               | 0.06                                                                                                                                                                    | 0.18                                                                                                                                                                    | 0.18                                                                                | 0.07                                                                                | 0.19                                                                                                                                                                    | 0.19                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                               | 3456                                                                                                                                                                    | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Grp Volume(v), veh/h         | 139                                                                               | 1818                                                                                                                                                                                                                                                  | 286                                                                               | 175                                                                               | 790                                                                                                                                                                                                                                                   | 65                                                                                 | 151                                                                                                                                                                     | 166                                                                                                                                                                     | 258                                                                                 | 115                                                                                 | 112                                                                                                                                                                     | 133                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                               | 1728                                                                                                                                                                    | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Q Serve(g_s), s              | 4.3                                                                               | 34.7                                                                                                                                                                                                                                                  | 13.8                                                                              | 7.5                                                                               | 14.4                                                                                                                                                                                                                                                  | 3.4                                                                                | 4.2                                                                                                                                                                     | 4.8                                                                                                                                                                     | 19.1                                                                                | 6.2                                                                                 | 6.5                                                                                                                                                                     | 8.9                                                                                 |
| Cycle Q Clear(g_c), s        | 4.3                                                                               | 34.7                                                                                                                                                                                                                                                  | 13.8                                                                              | 7.5                                                                               | 14.4                                                                                                                                                                                                                                                  | 3.4                                                                                | 4.2                                                                                                                                                                     | 4.8                                                                                                                                                                     | 19.1                                                                                | 6.2                                                                                 | 6.5                                                                                                                                                                     | 8.9                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                               | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 585                                                                               | 2433                                                                                                                                                                                                                                                  | 755                                                                               | 243                                                                               | 1767                                                                                                                                                                                                                                                  | 549                                                                                | 577                                                                                                                                                                     | 637                                                                                                                                                                     | 284                                                                                 | 319                                                                                 | 346                                                                                                                                                                     | 308                                                                                 |
| V/C Ratio(X)                 | 0.24                                                                              | 0.75                                                                                                                                                                                                                                                  | 0.38                                                                              | 0.72                                                                              | 0.45                                                                                                                                                                                                                                                  | 0.12                                                                               | 0.26                                                                                                                                                                    | 0.26                                                                                                                                                                    | 0.91                                                                                | 0.36                                                                                | 0.32                                                                                                                                                                    | 0.43                                                                                |
| Avail Cap(c_a), veh/h        | 585                                                                               | 2433                                                                                                                                                                                                                                                  | 755                                                                               | 481                                                                               | 1767                                                                                                                                                                                                                                                  | 549                                                                                | 1132                                                                                                                                                                    | 681                                                                                                                                                                     | 304                                                                                 | 578                                                                                 | 346                                                                                                                                                                     | 308                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 13.2                                                                              | 25.5                                                                                                                                                                                                                                                  | 20.1                                                                              | 26.6                                                                              | 30.4                                                                                                                                                                                                                                                  | 26.8                                                                               | 37.0                                                                                                                                                                    | 42.4                                                                                                                                                                    | 48.3                                                                                | 36.2                                                                                | 41.5                                                                                                                                                                    | 42.5                                                                                |
| Incr Delay (d2), s/veh       | 1.0                                                                               | 2.1                                                                                                                                                                                                                                                   | 1.4                                                                               | 4.0                                                                               | 0.8                                                                                                                                                                                                                                                   | 0.4                                                                                | 0.2                                                                                                                                                                     | 0.2                                                                                                                                                                     | 28.3                                                                                | 0.7                                                                                 | 0.5                                                                                                                                                                     | 1.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                                | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.7                                                                               | 13.6                                                                                                                                                                                                                                                  | 5.2                                                                               | 3.3                                                                               | 5.8                                                                                                                                                                                                                                                   | 1.3                                                                                | 1.8                                                                                                                                                                     | 2.1                                                                                                                                                                     | 9.6                                                                                 | 2.7                                                                                 | 2.9                                                                                                                                                                     | 3.5                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d),s/veh         | 14.1                                                                              | 27.7                                                                                                                                                                                                                                                  | 21.5                                                                              | 30.6                                                                              | 31.2                                                                                                                                                                                                                                                  | 27.2                                                                               | 37.2                                                                                                                                                                    | 42.6                                                                                                                                                                    | 76.6                                                                                | 36.9                                                                                | 42.1                                                                                                                                                                    | 43.4                                                                                |
| LnGrp LOS                    | B                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                 | C                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                  | D                                                                                                                                                                       | D                                                                                                                                                                       | E                                                                                   | D                                                                                   | D                                                                                                                                                                       | D                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 2243                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 1030                                                                                                                                                                                                                                                  |                                                                                    |                                                                                                                                                                         | 575                                                                                                                                                                     |                                                                                     |                                                                                     | 360                                                                                                                                                                     |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 26.1                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 30.8                                                                                                                                                                                                                                                  |                                                                                    |                                                                                                                                                                         | 56.4                                                                                                                                                                    |                                                                                     |                                                                                     | 40.9                                                                                                                                                                    |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                    |                                                                                                                                                                         | E                                                                                                                                                                       |                                                                                     |                                                                                     | D                                                                                                                                                                       |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                  | 7                                                                                                                                                                       | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 14.4                                                                              | 64.2                                                                                                                                                                                                                                                  | 13.0                                                                              | 28.5                                                                              | 30.0                                                                                                                                                                                                                                                  | 48.5                                                                               | 11.1                                                                                                                                                                    | 30.4                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                                | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 25.9                                                                              | 22.2                                                                                                                                                                                                                                                  | 25.9                                                                              | 23.0                                                                              | 25.5                                                                                                                                                                                                                                                  | 22.6                                                                               | 25.9                                                                                                                                                                    | 23.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 9.5                                                                               | 36.7                                                                                                                                                                                                                                                  | 8.2                                                                               | 21.1                                                                              | 6.3                                                                                                                                                                                                                                                   | 16.4                                                                               | 6.2                                                                                                                                                                     | 10.9                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.4                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.4                                                                               | 0.3                                                                                                                                                                                                                                                   | 2.7                                                                                | 0.4                                                                                                                                                                     | 1.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       | 32.6                                                                              |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       | C                                                                                 |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.1                                                                               |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 15                                                                                | 2062                                                                              | 983                                                                               | 4    | 1                                                                                 | 14   |
| Future Vol, veh/h        | 15                                                                                | 2062                                                                              | 983                                                                               | 4    | 1                                                                                 | 14   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 115                                                                               | -                                                                                 | -                                                                                 | -    | 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                                                                                | 2241                                                                              | 1068                                                                              | 4    | 1                                                                                 | 15   |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 1072   | 0      | 0 1998 536  |
| Stage 1              | -      | -      | - 1070 -    |
| Stage 2              | -      | -      | - 928 -     |
| Critical Hdwy        | 5.34   | -      | - 5.74 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - 6.64 -    |
| Critical Hdwy Stg 2  | -      | -      | - 6.04 -    |
| Follow-up Hdwy       | 3.12   | -      | - 3.82 3.92 |
| Pot Cap-1 Maneuver   | 361    | -      | - 94 419    |
| Stage 1              | -      | -      | - 219 -     |
| Stage 2              | -      | -      | - 312 -     |
| Platoon blocked, %   | -      | -      | -           |
| Mov Cap-1 Maneuver   | 361    | -      | - 90 419    |
| Mov Cap-2 Maneuver   | -      | -      | - 90 -      |
| Stage 1              | -      | -      | - 209 -     |
| Stage 2              | -      | -      | - 312 -     |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0  | 16.2 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 361   | -   | -   | -   | 337   |
| HCM Lane V/C Ratio    | 0.045 | -   | -   | -   | 0.048 |
| HCM Control Delay (s) | 15.4  | -   | -   | -   | 16.2  |
| HCM Lane LOS          | C     | -   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.2   |

HCM 6th TWSC  
3: Gibson Blvd & Buena Vista Dr

07/21/2021

| Intersection             |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.1                                                                               |                                                                                   |                                                                                   |        |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |        |  |      |
| Traffic Vol, veh/h       | 14                                                                                | 2079                                                                              | 993                                                                               | 5      | 0                                                                                 | 6    |
| Future Vol, veh/h        | 14                                                                                | 2079                                                                              | 993                                                                               | 5      | 0                                                                                 | 6    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None   | -                                                                                 | None |
| Storage Length           | 140                                                                               | -                                                                                 | -                                                                                 | -      | 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                                                                                | 2260                                                                              | 1079                                                                              | 5      | 0                                                                                 | 7    |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Major/Minor              | Major1                                                                            | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |      |
| Conflicting Flow All     | 1084                                                                              | 0                                                                                 | -                                                                                 | 0      | 2016                                                                              | 542  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 1082                                                                              | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 934                                                                               | -    |
| Critical Hdwy            | 5.34                                                                              | -                                                                                 | -                                                                                 | -      | 5.74                                                                              | 7.14 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 6.64                                                                              | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 6.04                                                                              | -    |
| Follow-up Hdwy           | 3.12                                                                              | -                                                                                 | -                                                                                 | -      | 3.82                                                                              | 3.92 |
| Pot Cap-1 Maneuver       | 356                                                                               | -                                                                                 | -                                                                                 | -      | 92                                                                                | 415  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 215                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 310                                                                               | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -      |                                                                                   |      |
| Mov Cap-1 Maneuver       | 356                                                                               | -                                                                                 | -                                                                                 | -      | 88                                                                                | 415  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -      | 88                                                                                | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 206                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 310                                                                               | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB     |                                                                                   |      |
| HCM Control Delay, s     | 0.1                                                                               | 0                                                                                 |                                                                                   | 13.8   |                                                                                   |      |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |        |                                                                                   |      |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |
| Capacity (veh/h)         | 356                                                                               | -                                                                                 | -                                                                                 | -      | 415                                                                               |      |
| HCM Lane V/C Ratio       | 0.043                                                                             | -                                                                                 | -                                                                                 | -      | 0.016                                                                             |      |
| HCM Control Delay (s)    | 15.6                                                                              | -                                                                                 | -                                                                                 | -      | 13.8                                                                              |      |
| HCM Lane LOS             | C                                                                                 | -                                                                                 | -                                                                                 | -      | B                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0.1                                                                               | -                                                                                 | -                                                                                 | -      | 0                                                                                 |      |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

07/21/2021

Intersection

Int Delay, s/veh 0.2

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 2081 | 90   | 7    | 992  | 0    | 12   |
| Future Vol, veh/h        | 2081 | 90   | 7    | 992  | 0    | 12   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 2262 | 98   | 8    | 1078 | 0    | 13   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 2360   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 5.34   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 3.12   |
| Pot Cap-1 Maneuver   | -      | -      | 82     |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 82     |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.4 | 28.1 |
| HCM LOS              |    |     | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 169   | -   | -   | 82    | -   |
| HCM Lane V/C Ratio    | 0.077 | -   | -   | 0.093 | -   |
| HCM Control Delay (s) | 28.1  | -   | -   | 53.3  | -   |
| HCM Lane LOS          | D     | -   | -   | F     | -   |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | 0.3   | -   |

Intersection

Int Delay, s/veh 7.2

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 8    | 17                                                                                | 5                                                                                 | 4    | 90                                                                                | 7                                                                                 |
| Future Vol, veh/h        | 8    | 17                                                                                | 5                                                                                 | 4    | 90                                                                                | 7                                                                                 |
| 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                                                                                 | 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                | 9    | 18                                                                                | 5                                                                                 | 4    | 98                                                                                | 8                                                                                 |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 9      | 0      | 0 43 7        |
| Stage 1              | -      | -      | - 7 -         |
| Stage 2              | -      | -      | - 36 -        |
| 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   | 1611   | -      | - 968 1075    |
| Stage 1              | -      | -      | - 1016 -      |
| Stage 2              | -      | -      | - 986 -       |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1611   | -      | - 962 1075    |
| Mov Cap-2 Maneuver   | -      | -      | - 962 -       |
| Stage 1              | -      | -      | - 1010 -      |
| Stage 2              | -      | -      | - 986 -       |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 2.3 | 0  | 9.1 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 1611  | -   | -   | -   | 962   | 1075  |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | -   | 0.102 | 0.007 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 9.2   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   | 0     |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

07/21/2021

| Intersection             |        |                                                                                   |        |       |                                                                                   |       |        |                                                                                                                                                                     |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.2    |                                                                                   |        |       |                                                                                   |       |        |                                                                                                                                                                     |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| Movement                 | EBL    | EBT                                                                               | EBR    | WBL   | WBT                                                                               | WBR   | NBL    | NBT                                                                                                                                                                 | NBR                                                                                                                                                                    | SBL                                                                                                                                                                     | SBT                                                                                                                                                                     | SBR  |
| Lane Configurations      |        |  |        |       |  |       |        |   |   |   |   |      |
| Traffic Vol, veh/h       | 2      | 0                                                                                 | 2      | 2     | 0                                                                                 | 7     | 0      | 519                                                                                                                                                                 | 1                                                                                                                                                                      | 8                                                                                                                                                                       | 512                                                                                                                                                                     | 5    |
| Future Vol, veh/h        | 2      | 0                                                                                 | 2      | 2     | 0                                                                                 | 7     | 0      | 519                                                                                                                                                                 | 1                                                                                                                                                                      | 8                                                                                                                                                                       | 512                                                                                                                                                                     | 5    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0      | 0     | 0                                                                                 | 0     | 0      | 0                                                                                                                                                                   | 0                                                                                                                                                                      | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop   | Stop  | Stop                                                                              | Stop  | Free   | Free                                                                                                                                                                | Free                                                                                                                                                                   | Free                                                                                                                                                                    | Free                                                                                                                                                                    | Free |
| RT Channelized           | -      | -                                                                                 | None   | -     | -                                                                                 | None  | -      | -                                                                                                                                                                   | None                                                                                                                                                                   | -                                                                                                                                                                       | -                                                                                                                                                                       | None |
| Storage Length           | -      | -                                                                                 | -      | -     | -                                                                                 | -     | -      | -                                                                                                                                                                   | 0                                                                                                                                                                      | 60                                                                                                                                                                      | -                                                                                                                                                                       | -    |
| Veh in Median Storage, # | -      | 0                                                                                 | -      | -     | 0                                                                                 | -     | -      | 0                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | 0                                                                                                                                                                       | -    |
| Grade, %                 | -      | 0                                                                                 | -      | -     | 0                                                                                 | -     | -      | 0                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | 0                                                                                                                                                                       | -    |
| Peak Hour Factor         | 92     | 92                                                                                | 92     | 92    | 92                                                                                | 92    | 92     | 92                                                                                                                                                                  | 92                                                                                                                                                                     | 92                                                                                                                                                                      | 92                                                                                                                                                                      | 92   |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2      | 2     | 2                                                                                 | 2     | 2      | 2                                                                                                                                                                   | 2                                                                                                                                                                      | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2    |
| Mvmt Flow                | 2      | 0                                                                                 | 2      | 2     | 0                                                                                 | 8     | 0      | 564                                                                                                                                                                 | 1                                                                                                                                                                      | 9                                                                                                                                                                       | 557                                                                                                                                                                     | 5    |
|                          |        |                                                                                   |        |       |                                                                                   |       |        |                                                                                                                                                                     |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| Major/Minor              | Minor2 |                                                                                   | Minor1 |       | Major1                                                                            |       | Major2 |                                                                                                                                                                     |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| Conflicting Flow All     | 860    | 1143                                                                              | 281    | 805   | 1144                                                                              | 282   | 562    | 0                                                                                                                                                                   | 0                                                                                                                                                                      | 565                                                                                                                                                                     | 0                                                                                                                                                                       | 0    |
| Stage 1                  | 578    | 578                                                                               | -      | 564   | 564                                                                               | -     | -      | -                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | -                                                                                                                                                                       | -    |
| Stage 2                  | 282    | 565                                                                               | -      | 241   | 580                                                                               | -     | -      | -                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | -                                                                                                                                                                       | -    |
| Critical Hdwy            | 6.99   | 6.54                                                                              | 7.14   | 6.99  | 6.54                                                                              | 6.94  | 5.34   | -                                                                                                                                                                   | -                                                                                                                                                                      | 4.14                                                                                                                                                                    | -                                                                                                                                                                       | -    |
| Critical Hdwy Stg 1      | 7.34   | 5.54                                                                              | -      | 6.54  | 5.54                                                                              | -     | -      | -                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | -                                                                                                                                                                       | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54                                                                              | -      | 6.74  | 5.54                                                                              | -     | -      | -                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | -                                                                                                                                                                       | -    |
| Follow-up Hdwy           | 3.67   | 4.02                                                                              | 3.92   | 3.67  | 4.02                                                                              | 3.32  | 3.12   | -                                                                                                                                                                   | -                                                                                                                                                                      | 2.22                                                                                                                                                                    | -                                                                                                                                                                       | -    |
| Pot Cap-1 Maneuver       | 277    | 199                                                                               | 611    | 301   | 198                                                                               | 715   | 633    | -                                                                                                                                                                   | -                                                                                                                                                                      | 1003                                                                                                                                                                    | -                                                                                                                                                                       | -    |
| Stage 1                  | 400    | 499                                                                               | -      | 463   | 507                                                                               | -     | -      | -                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | -                                                                                                                                                                       | -    |
| Stage 2                  | 676    | 506                                                                               | -      | 705   | 498                                                                               | -     | -      | -                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | -                                                                                                                                                                       | -    |
| Platoon blocked, %       |        |                                                                                   |        |       |                                                                                   |       |        | -                                                                                                                                                                   | -                                                                                                                                                                      |                                                                                                                                                                         | -                                                                                                                                                                       | -    |
| Mov Cap-1 Maneuver       | 272    | 197                                                                               | 611    | 298   | 196                                                                               | 715   | 633    | -                                                                                                                                                                   | -                                                                                                                                                                      | 1003                                                                                                                                                                    | -                                                                                                                                                                       | -    |
| Mov Cap-2 Maneuver       | 272    | 197                                                                               | -      | 298   | 196                                                                               | -     | -      | -                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | -                                                                                                                                                                       | -    |
| Stage 1                  | 400    | 495                                                                               | -      | 463   | 507                                                                               | -     | -      | -                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | -                                                                                                                                                                       | -    |
| Stage 2                  | 669    | 506                                                                               | -      | 696   | 494                                                                               | -     | -      | -                                                                                                                                                                   | -                                                                                                                                                                      | -                                                                                                                                                                       | -                                                                                                                                                                       | -    |
|                          |        |                                                                                   |        |       |                                                                                   |       |        |                                                                                                                                                                     |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| Approach                 | EB     |                                                                                   | WB     |       | NB                                                                                |       | SB     |                                                                                                                                                                     |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| HCM Control Delay, s     | 14.7   |                                                                                   | 11.7   |       | 0                                                                                 |       | 0.1    |                                                                                                                                                                     |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| HCM LOS                  | B      |                                                                                   | B      |       |                                                                                   |       |        |                                                                                                                                                                     |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
|                          |        |                                                                                   |        |       |                                                                                   |       |        |                                                                                                                                                                     |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR    | EBLn1 | WBLn1                                                                             | SBL   | SBT    | SBR                                                                                                                                                                 |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| Capacity (veh/h)         | 633    | -                                                                                 | -      | 376   | 545                                                                               | 1003  | -      | -                                                                                                                                                                   |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| HCM Lane V/C Ratio       | -      | -                                                                                 | -      | 0.012 | 0.018                                                                             | 0.009 | -      | -                                                                                                                                                                   |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| HCM Control Delay (s)    | 0      | -                                                                                 | -      | 14.7  | 11.7                                                                              | 8.6   | -      | -                                                                                                                                                                   |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| HCM Lane LOS             | A      | -                                                                                 | -      | B     | B                                                                                 | A     | -      | -                                                                                                                                                                   |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -      | 0     | 0.1                                                                               | 0     | -      | -                                                                                                                                                                   |                                                                                                                                                                        |                                                                                                                                                                         |                                                                                                                                                                         |      |

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4: Walker Rd & Gibson Blvd Performance by movement

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| Movement           | EBT  | EBR  | WBL  | WBT | NBR  | All |
|--------------------|------|------|------|-----|------|-----|
| Denied Del/Veh (s) | 0.0  | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 |
| Total Del/Veh (s)  | 11.8 | 11.5 | 16.5 | 1.9 | 15.3 | 8.7 |

## Intersection: 4: Walker Rd &amp; Gibson Blvd

| Movement              | EB   | EB   | WB  | NB  |
|-----------------------|------|------|-----|-----|
| Directions Served     | T    | T    | L   | R   |
| Maximum Queue (ft)    | 1120 | 1120 | 51  | 22  |
| Average Queue (ft)    | 40   | 40   | 7   | 6   |
| 95th Queue (ft)       | 383  | 383  | 29  | 22  |
| Link Distance (ft)    | 1094 | 1094 |     | 218 |
| Upstream Blk Time (%) | 0    | 0    |     |     |
| Queuing Penalty (veh) | 1    | 0    |     |     |
| Storage Bay Dist (ft) |      |      | 175 |     |
| Storage Blk Time (%)  |      |      |     |     |
| Queuing Penalty (veh) |      |      |     |     |

# Timings

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                      |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Configurations  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 133                                                                               | 816                                                                               | 356                                                                               | 355                                                                               | 2098                                                                              | 128                                                                               | 286                                                                                | 187                                                                                 | 278                                                                                 | 101                                                                                 | 298                                                                                 |
| Future Volume (vph)  | 133                                                                               | 816                                                                               | 356                                                                               | 355                                                                               | 2098                                                                              | 128                                                                               | 286                                                                                | 187                                                                                 | 278                                                                                 | 101                                                                                 | 298                                                                                 |
| Turn Type            | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |
| Protected Phases     | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                  | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |
| Permitted Phases     | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 4                                                                                  |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     |
| Detector Phase       | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 | 6                                                                                 | 7                                                                                  | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   |
| Switch Phase         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                                | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                               | 25.0                                                                                | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                |
| Total Split (s)      | 33.0                                                                              | 32.0                                                                              | 32.0                                                                              | 32.5                                                                              | 31.5                                                                              | 31.5                                                                              | 32.5                                                                               | 33.0                                                                                | 33.0                                                                                | 32.5                                                                                | 33.0                                                                                |
| Total Split (%)      | 25.4%                                                                             | 24.6%                                                                             | 24.6%                                                                             | 25.0%                                                                             | 24.2%                                                                             | 24.2%                                                                             | 25.0%                                                                              | 25.4%                                                                               | 25.4%                                                                               | 25.0%                                                                               | 25.4%                                                                               |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                                | 3.0                                                                                 | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                 |
| 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)  | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                                | 7.0                                                                                 | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                 |
| Lead/Lag             | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode          | Max                                                                               | C-Max                                                                             | C-Max                                                                             | None                                                                              | Max                                                                               | Max                                                                               | None                                                                               | None                                                                                | None                                                                                | None                                                                                | None                                                                                |
| Act Effct Green (s)  | 75.5                                                                              | 40.3                                                                              | 40.3                                                                              | 56.0                                                                              | 24.5                                                                              | 24.5                                                                              | 44.1                                                                               | 26.6                                                                                | 26.6                                                                                | 36.4                                                                                | 22.7                                                                                |
| Actuated g/C Ratio   | 0.58                                                                              | 0.31                                                                              | 0.31                                                                              | 0.43                                                                              | 0.19                                                                              | 0.19                                                                              | 0.34                                                                               | 0.20                                                                                | 0.20                                                                                | 0.28                                                                                | 0.17                                                                                |
| v/c Ratio            | 0.22                                                                              | 0.56                                                                              | 0.51                                                                              | 0.75                                                                              | 2.38                                                                              | 0.36                                                                              | 0.57                                                                               | 0.28                                                                                | 0.54                                                                                | 0.29                                                                                | 0.79                                                                                |
| Control Delay        | 14.7                                                                              | 41.4                                                                              | 6.8                                                                               | 31.9                                                                              | 648.1                                                                             | 15.9                                                                              | 34.1                                                                               | 43.6                                                                                | 8.0                                                                                 | 30.4                                                                                | 51.6                                                                                |
| 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          | 14.7                                                                              | 41.4                                                                              | 6.8                                                                               | 31.9                                                                              | 648.1                                                                             | 15.9                                                                              | 34.1                                                                               | 43.6                                                                                | 8.0                                                                                 | 30.4                                                                                | 51.6                                                                                |
| LOS                  | B                                                                                 | D                                                                                 | A                                                                                 | C                                                                                 | F                                                                                 | B                                                                                 | C                                                                                  | D                                                                                   | A                                                                                   | C                                                                                   | D                                                                                   |
| Approach Delay       |                                                                                   | 29.3                                                                              |                                                                                   |                                                                                   | 532.0                                                                             |                                                                                   |                                                                                    | 26.8                                                                                |                                                                                     |                                                                                     | 47.9                                                                                |
| Approach LOS         |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     | D                                                                                   |

### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.38

Intersection Signal Delay: 279.7

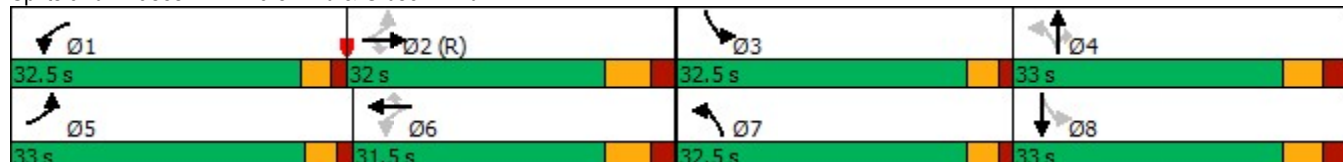
Intersection LOS: F

Intersection Capacity Utilization 89.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



## Queues

## 1: Yale Blvd &amp; Gibson Blvd

07/21/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 145  | 887  | 387  | 386  | 2280  | 139  | 311  | 203  | 302  | 110  | 520  |
| v/c Ratio               | 0.22 | 0.56 | 0.51 | 0.75 | 2.38  | 0.36 | 0.57 | 0.28 | 0.54 | 0.29 | 0.79 |
| Control Delay           | 14.7 | 41.4 | 6.8  | 31.9 | 648.1 | 15.9 | 34.1 | 43.6 | 8.0  | 30.4 | 51.6 |
| 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             | 14.7 | 41.4 | 6.8  | 31.9 | 648.1 | 15.9 | 34.1 | 43.6 | 8.0  | 30.4 | 51.6 |
| Queue Length 50th (ft)  | 52   | 231  | 0    | 182  | ~1154 | 21   | 97   | 76   | 0    | 65   | 187  |
| Queue Length 95th (ft)  | 103  | #347 | 91   | 284  | #1247 | 81   | 118  | 105  | 72   | 97   | 237  |
| Internal Link Dist (ft) |      | 278  |      |      | 518   |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |       | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 670  | 1576 | 757  | 537  | 958   | 386  | 823  | 768  | 580  | 530  | 752  |
| 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       | 0.22 | 0.56 | 0.51 | 0.72 | 2.38  | 0.36 | 0.38 | 0.26 | 0.52 | 0.21 | 0.69 |

## Intersection Summary

~ 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.

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

07/21/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                       |                                                                                      |  |  |                                                                                                                                                                          |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |    |  |
| Traffic Volume (veh/h)       | 133                                                                               | 816                                                                                                                                                                                                                                                   | 356                                                                               | 355                                                                               | 2098                                                                                                                                                                                                                                                  | 128                                                                               | 286                                                                                                                                                                     | 187                                                                                                                                                                     | 278                                                                                 | 101                                                                                 | 298                                                                                                                                                                                                                                                         | 180                                                                                 |
| Future Volume (veh/h)        | 133                                                                               | 816                                                                                                                                                                                                                                                   | 356                                                                               | 355                                                                               | 2098                                                                                                                                                                                                                                                  | 128                                                                               | 286                                                                                                                                                                     | 187                                                                                                                                                                     | 278                                                                                 | 101                                                                                 | 298                                                                                                                                                                                                                                                         | 180                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                                                                                                         | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                                                                                                                    | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                |
| Adj Flow Rate, veh/h         | 145                                                                               | 887                                                                                                                                                                                                                                                   | 387                                                                               | 386                                                                               | 2280                                                                                                                                                                                                                                                  | 139                                                                               | 311                                                                                                                                                                     | 203                                                                                                                                                                     | 302                                                                                 | 110                                                                                 | 324                                                                                                                                                                                                                                                         | 196                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                                                                                                                    | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                                                                                                        | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   |
| Cap, veh/h                   | 446                                                                               | 2007                                                                                                                                                                                                                                                  | 623                                                                               | 457                                                                               | 1708                                                                                                                                                                                                                                                  | 530                                                                               | 478                                                                                                                                                                     | 719                                                                                                                                                                     | 321                                                                                 | 312                                                                                 | 376                                                                                                                                                                                                                                                         | 223                                                                                 |
| Arrive On Green              | 0.22                                                                              | 0.39                                                                                                                                                                                                                                                  | 0.39                                                                              | 0.16                                                                              | 0.33                                                                                                                                                                                                                                                  | 0.33                                                                              | 0.09                                                                                                                                                                    | 0.20                                                                                                                                                                    | 0.20                                                                                | 0.07                                                                                | 0.18                                                                                                                                                                                                                                                        | 0.18                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 3456                                                                                                                                                                    | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 2148                                                                                                                                                                                                                                                        | 1271                                                                                |
| Grp Volume(v), veh/h         | 145                                                                               | 887                                                                                                                                                                                                                                                   | 387                                                                               | 386                                                                               | 2280                                                                                                                                                                                                                                                  | 139                                                                               | 311                                                                                                                                                                     | 203                                                                                                                                                                     | 302                                                                                 | 110                                                                                 | 267                                                                                                                                                                                                                                                         | 253                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1728                                                                                                                                                                    | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                                                                                                        | 1642                                                                                |
| Q Serve(g_s), s              | 5.0                                                                               | 16.6                                                                                                                                                                                                                                                  | 25.5                                                                              | 18.2                                                                              | 43.5                                                                                                                                                                                                                                                  | 8.3                                                                               | 9.3                                                                                                                                                                     | 6.3                                                                                                                                                                     | 24.4                                                                                | 6.5                                                                                 | 18.9                                                                                                                                                                                                                                                        | 19.6                                                                                |
| Cycle Q Clear(g_c), s        | 5.0                                                                               | 16.6                                                                                                                                                                                                                                                  | 25.5                                                                              | 18.2                                                                              | 43.5                                                                                                                                                                                                                                                  | 8.3                                                                               | 9.3                                                                                                                                                                     | 6.3                                                                                                                                                                     | 24.4                                                                                | 6.5                                                                                 | 18.9                                                                                                                                                                                                                                                        | 19.6                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 0.77                                                                                |
| Lane Grp Cap(c), veh/h       | 446                                                                               | 2007                                                                                                                                                                                                                                                  | 623                                                                               | 457                                                                               | 1708                                                                                                                                                                                                                                                  | 530                                                                               | 478                                                                                                                                                                     | 719                                                                                                                                                                     | 321                                                                                 | 312                                                                                 | 311                                                                                                                                                                                                                                                         | 288                                                                                 |
| V/C Ratio(X)                 | 0.33                                                                              | 0.44                                                                                                                                                                                                                                                  | 0.62                                                                              | 0.84                                                                              | 1.33                                                                                                                                                                                                                                                  | 0.26                                                                              | 0.65                                                                                                                                                                    | 0.28                                                                                                                                                                    | 0.94                                                                                | 0.35                                                                                | 0.86                                                                                                                                                                                                                                                        | 0.88                                                                                |
| Avail Cap(c_a), veh/h        | 446                                                                               | 2007                                                                                                                                                                                                                                                  | 623                                                                               | 554                                                                               | 1708                                                                                                                                                                                                                                                  | 530                                                                               | 897                                                                                                                                                                     | 719                                                                                                                                                                     | 321                                                                                 | 577                                                                                 | 355                                                                                                                                                                                                                                                         | 328                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 21.1                                                                              | 29.0                                                                                                                                                                                                                                                  | 31.7                                                                              | 23.3                                                                              | 43.3                                                                                                                                                                                                                                                  | 31.5                                                                              | 39.3                                                                                                                                                                    | 43.9                                                                                                                                                                    | 51.1                                                                                | 39.8                                                                                | 52.0                                                                                                                                                                                                                                                        | 52.3                                                                                |
| Incr Delay (d2), s/veh       | 1.9                                                                               | 0.7                                                                                                                                                                                                                                                   | 4.6                                                                               | 9.8                                                                               | 154.7                                                                                                                                                                                                                                                 | 1.2                                                                               | 1.5                                                                                                                                                                     | 0.2                                                                                                                                                                     | 35.3                                                                                | 0.7                                                                                 | 16.8                                                                                                                                                                                                                                                        | 21.2                                                                                |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 2.1                                                                               | 6.7                                                                                                                                                                                                                                                   | 10.3                                                                              | 8.5                                                                               | 42.0                                                                                                                                                                                                                                                  | 3.3                                                                               | 4.0                                                                                                                                                                     | 2.8                                                                                                                                                                     | 12.6                                                                                | 2.9                                                                                 | 9.8                                                                                                                                                                                                                                                         | 9.6                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| LnGrp Delay(d),s/veh         | 23.0                                                                              | 29.7                                                                                                                                                                                                                                                  | 36.3                                                                              | 33.1                                                                              | 197.9                                                                                                                                                                                                                                                 | 32.7                                                                              | 40.8                                                                                                                                                                    | 44.1                                                                                                                                                                    | 86.4                                                                                | 40.5                                                                                | 68.8                                                                                                                                                                                                                                                        | 73.5                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                                                                                                                                                                                     | D                                                                                 | C                                                                                 | F                                                                                                                                                                                                                                                     | C                                                                                 | D                                                                                                                                                                       | D                                                                                                                                                                       | F                                                                                   | D                                                                                   | E                                                                                                                                                                                                                                                           | E                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 1419                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 2805                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 816                                                                                                                                                                     |                                                                                     |                                                                                     | 630                                                                                                                                                                                                                                                         |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 30.8                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 167.0                                                                                                                                                                                                                                                 |                                                                                   |                                                                                                                                                                         | 58.5                                                                                                                                                                    |                                                                                     |                                                                                     | 65.8                                                                                                                                                                                                                                                        |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | F                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | E                                                                                                                                                                       |                                                                                     |                                                                                     | E                                                                                                                                                                                                                                                           |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 25.4                                                                              | 58.1                                                                                                                                                                                                                                                  | 13.2                                                                              | 33.3                                                                              | 33.0                                                                                                                                                                                                                                                  | 50.5                                                                              | 16.7                                                                                                                                                                    | 29.8                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Green Setting (Gmax), s  | 28.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 28.0                                                                              | 26.0                                                                              | 28.5                                                                                                                                                                                                                                                  | 24.5                                                                              | 28.0                                                                                                                                                                    | 26.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 20.2                                                                              | 27.5                                                                                                                                                                                                                                                  | 8.5                                                                               | 26.4                                                                              | 7.0                                                                                                                                                                                                                                                   | 45.5                                                                              | 11.3                                                                                                                                                                    | 21.6                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Green Ext Time (p_c), s      | 0.7                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.0                                                                               | 0.3                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.9                                                                                                                                                                     | 1.2                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 106.1                                                                             |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | F                                                                                 |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |

HCM 6th TWSC  
2: Gibson Blvd & Wilmoore Dr

07/21/2021

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 4.2                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR                                                                               | SBL                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 28                                                                                | 1299                                                                              | 2542                                                                              | 20                                                                                | 5                                                                                 | 24                                                                                |
| Future Vol, veh/h        | 28                                                                                | 1299                                                                              | 2542                                                                              | 20                                                                                | 5                                                                                 | 24                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 115                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 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                                                                                | 1412                                                                              | 2763                                                                              | 22                                                                                | 5                                                                                 | 26                                                                                |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 2785   | 0      | 0 3399 1393 |
| Stage 1              | -      | -      | - 2774 -    |
| Stage 2              | -      | -      | - 625 -     |
| Critical Hdwy        | 5.34   | -      | - 5.74 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - 6.64 -    |
| Critical Hdwy Stg 2  | -      | -      | - 6.04 -    |
| Follow-up Hdwy       | 3.12   | -      | - 3.82 3.92 |
| Pot Cap-1 Maneuver   | 49     | -      | - 15 113    |
| Stage 1              | -      | -      | - 18 -      |
| Stage 2              | -      | -      | - 452 -     |
| Platoon blocked, %   | -      | -      | -           |
| Mov Cap-1 Maneuver   | 49     | -      | - 6 113     |
| Mov Cap-2 Maneuver   | -      | -      | - 6 -       |
| Stage 1              | -      | -      | - 7 -       |
| Stage 2              | -      | -      | - 452 -     |

| Approach             | EB  | WB | SB       |
|----------------------|-----|----|----------|
| HCM Control Delay, s | 3.4 | 0  | \$ 418.6 |
| HCM LOS              |     |    | F        |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1    |
|-----------------------|-------|-----|-----|-----|----------|
| Capacity (veh/h)      | 49    | -   | -   | -   | 28       |
| HCM Lane V/C Ratio    | 0.621 | -   | -   | -   | 1.126    |
| HCM Control Delay (s) | 160   | -   | -   | -   | \$ 418.6 |
| HCM Lane LOS          | F     | -   | -   | -   | F        |
| HCM 95th %tile Q(veh) | 2.4   | -   | -   | -   | 3.7      |

| Notes                      |                        |                            |                                |
|----------------------------|------------------------|----------------------------|--------------------------------|
| ~: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

HCM 6th TWSC  
3: Gibson Blvd & Buena Vista Dr

07/21/2021

Intersection

Int Delay, s/veh 2.2

Movement EBL EBT WBT WBR SBL SBR

|                          |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 30                                                                                | 1328                                                                              | 2560                                                                              | 7    | 2                                                                                 | 15   |
| Future Vol, veh/h        | 30                                                                                | 1328                                                                              | 2560                                                                              | 7    | 2                                                                                 | 15   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 140                                                                               | -                                                                                 | -                                                                                 | -    | 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                                                                                | 1443                                                                              | 2783                                                                              | 8    | 2                                                                                 | 16   |

Major/Minor Major1 Major2 Minor2

|                      |      |   |   |   |      |      |
|----------------------|------|---|---|---|------|------|
| Conflicting Flow All | 2791 | 0 | - | 0 | 3430 | 1396 |
| Stage 1              | -    | - | - | - | 2787 | -    |
| Stage 2              | -    | - | - | - | 643  | -    |
| Critical Hdwy        | 5.34 | - | - | - | 5.74 | 7.14 |
| Critical Hdwy Stg 1  | -    | - | - | - | 6.64 | -    |
| Critical Hdwy Stg 2  | -    | - | - | - | 6.04 | -    |
| Follow-up Hdwy       | 3.12 | - | - | - | 3.82 | 3.92 |
| Pot Cap-1 Maneuver   | 49   | - | - | - | 15   | 112  |
| Stage 1              | -    | - | - | - | 17   | -    |
| Stage 2              | -    | - | - | - | 442  | -    |
| Platoon blocked, %   |      | - | - | - |      |      |
| Mov Cap-1 Maneuver   | 49   | - | - | - | 5    | 112  |
| Mov Cap-2 Maneuver   | -    | - | - | - | 5    | -    |
| Stage 1              | -    | - | - | - | 6    | -    |
| Stage 2              | -    | - | - | - | 442  | -    |

Approach EB WB SB

|                      |     |   |       |
|----------------------|-----|---|-------|
| HCM Control Delay, s | 3.7 | 0 | 218.1 |
| HCM LOS              |     |   | F     |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 49    | - | - | - | 32    |
| HCM Lane V/C Ratio    | 0.665 | - | - | - | 0.577 |
| HCM Control Delay (s) | 169.5 | - | - | - | 218.1 |
| HCM Lane LOS          | F     | - | - | - | F     |
| HCM 95th %tile Q(veh) | 2.6   | - | - | - | 1.9   |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

07/21/2021

Intersection

Int Delay, s/veh 0.2

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1330 | 46   | 16   | 2559 | 0    | 28   |
| Future Vol, veh/h        | 1330 | 46   | 16   | 2559 | 0    | 28   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 1446 | 50   | 17   | 2782 | 0    | 30   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1496   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 5.34   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.12   | -      |
| Pot Cap-1 Maneuver   | -      | 224    | 0      |
| Stage 1              | -      | -      | 0      |
| Stage 2              | -      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 224    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 17.6 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 316   | -   | -   | 224   | -   |
| HCM Lane V/C Ratio    | 0.096 | -   | -   | 0.078 | -   |
| HCM Control Delay (s) | 17.6  | -   | -   | 22.4  | -   |
| HCM Lane LOS          | C     | -   | -   | C     | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | 0.2   | -   |

Intersection

Int Delay, s/veh 4.3

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 19   | 24                                                                                | 52                                                                                | 9    | 40                                                                                | 22                                                                                |
| Future Vol, veh/h        | 19   | 24                                                                                | 52                                                                                | 9    | 40                                                                                | 22                                                                                |
| 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                                                                                 | 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   | 26                                                                                | 57                                                                                | 10   | 43                                                                                | 24                                                                                |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 67     | 0      | 130    |
| Stage 1              | -      | -      | 62     |
| Stage 2              | -      | -      | 68     |
| 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   | 1535   | -      | 864    |
| Stage 1              | -      | -      | 961    |
| Stage 2              | -      | -      | 955    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1535   | -      | 852    |
| Mov Cap-2 Maneuver   | -      | -      | 852    |
| Stage 1              | -      | -      | 948    |
| Stage 2              | -      | -      | 955    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 3.3 | 0  | 9.2 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 1535  | -   | -   | -   | 852   | 1003  |
| HCM Lane V/C Ratio    | 0.013 | -   | -   | -   | 0.051 | 0.024 |
| HCM Control Delay (s) | 7.4   | 0   | -   | -   | 9.5   | 8.7   |
| HCM Lane LOS          | A     | A   | -   | -   | A     | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.2   | 0.1   |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

07/21/2021

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.8  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    | ↕    | ↕    | ↕    |      |
| Traffic Vol, veh/h       | 3    | 2    | 12   | 7    | 1    | 16   | 2    | 730  | 3    | 33   | 964  | 8    |
| Future Vol, veh/h        | 3    | 2    | 12   | 7    | 1    | 16   | 2    | 730  | 3    | 33   | 964  | 8    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | 0    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 2    | 13   | 8    | 1    | 17   | 2    | 793  | 3    | 36   | 1048 | 9    |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1526   | 1925 | 529    | 1289 | 1926   | 397  | 1057   | 0 | 0 | 796  | 0 | 0 |
| Stage 1              | 1125   | 1125 | -      | 797  | 797    | -    | -      | - | - | -    | - | - |
| Stage 2              | 401    | 800  | -      | 492  | 1129   | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.99   | 6.54 | 7.14   | 6.99 | 6.54   | 6.94 | 5.34   | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.67   | 4.02 | 3.92   | 3.67 | 4.02   | 3.32 | 3.12   | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 100    | 66   | 423    | 144  | 66     | 602  | 367    | - | - | 822  | - | - |
| Stage 1              | 166    | 278  | -      | 337  | 397    | -    | -      | - | - | -    | - | - |
| Stage 2              | 577    | 395  | -      | 497  | 277    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 92     | 62   | 423    | 130  | 62     | 602  | 367    | - | - | 822  | - | - |
| Mov Cap-2 Maneuver   | 92     | 62   | -      | 130  | 62     | -    | -      | - | - | -    | - | - |
| Stage 1              | 164    | 266  | -      | 334  | 393    | -    | -      | - | - | -    | - | - |
| Stage 2              | 553    | 391  | -      | 457  | 265    | -    | -      | - | - | -    | - | - |

| Approach             | EB |  | WB   |  | NB  |  | SB  |  |
|----------------------|----|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 27 |  | 21.1 |  | 0.1 |  | 0.3 |  |
| HCM LOS              | D  |  | C    |  |     |  |     |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 367   | -   | -   | 182        | 249   | 822   | -   |
| HCM Lane V/C Ratio    | 0.006 | -   | -   | 0.102      | 0.105 | 0.044 | -   |
| HCM Control Delay (s) | 14.9  | 0.1 | -   | 27         | 21.1  | 9.6   | -   |
| HCM Lane LOS          | B     | A   | -   | D          | C     | A     | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.3        | 0.3   | 0.1   | -   |

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4: Walker Rd & Gibson Blvd Performance by movement

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| Movement           | EBT | EBR | WBL  | WBT | NBT | NBR  | All |
|--------------------|-----|-----|------|-----|-----|------|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0  | 0.0 | 0.0 | 0.0  | 0.0 |
| Total Del/Veh (s)  | 5.3 | 5.1 | 14.5 | 1.1 | 0.1 | 13.5 | 3.3 |

## Intersection: 4: Walker Rd & Gibson Blvd

| Movement              | WB  | NB  |
|-----------------------|-----|-----|
| Directions Served     | L   | R   |
| Maximum Queue (ft)    | 28  | 66  |
| Average Queue (ft)    | 5   | 18  |
| 95th Queue (ft)       | 21  | 49  |
| Link Distance (ft)    |     | 218 |
| Upstream Blk Time (%) |     |     |
| Queuing Penalty (veh) |     |     |
| Storage Bay Dist (ft) | 175 |     |
| Storage Blk Time (%)  |     |     |
| Queuing Penalty (veh) |     |     |

## **APPENDIX G – Future (with site development) Synchro Outputs**

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

08/06/2021

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 4.3  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      | ↕    | ↕    |      |
| Traffic Vol, veh/h       | 35   | 0    | 151  | 2    | 0    | 7    | 112  | 416  | 1    | 8    | 416  | 91   |
| Future Vol, veh/h        | 35   | 0    | 151  | 2    | 0    | 7    | 112  | 416  | 1    | 8    | 416  | 91   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 38   | 0    | 164  | 2    | 0    | 8    | 122  | 452  | 1    | 9    | 452  | 99   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 945    | 1217 | 276    | 896  | 1266   | 227  | 551    | 0 | 0 | 453  | 0 | 0 |
| Stage 1              | 520    | 520  | -      | 697  | 697    | -    | -      | - | - | -    | - | - |
| Stage 2              | 425    | 697  | -      | 199  | 569    | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.44   | 6.54 | 7.14   | 6.44 | 6.54   | 7.14 | 5.34   | - | - | 5.34 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 7.34 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.74   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.82   | 4.02 | 3.92   | 3.82 | 4.02   | 3.92 | 3.12   | - | - | 3.12 | - | - |
| Pot Cap-1 Maneuver   | 275    | 180  | 615    | 294  | 168    | 661  | 641    | - | - | 713  | - | - |
| Stage 1              | 425    | 530  | -      | 322  | 441    | -    | -      | - | - | -    | - | - |
| Stage 2              | 528    | 441  | -      | 720  | 504    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 216    | 132  | 615    | 172  | 124    | 661  | 641    | - | - | 713  | - | - |
| Mov Cap-2 Maneuver   | 216    | 132  | -      | 172  | 124    | -    | -      | - | - | -    | - | - |
| Stage 1              | 317    | 523  | -      | 240  | 329    | -    | -      | - | - | -    | - | - |
| Stage 2              | 389    | 329  | -      | 521  | 497    | -    | -      | - | - | -    | - | - |

| Approach             | EB | WB   | NB | SB  |
|----------------------|----|------|----|-----|
| HCM Control Delay, s | 19 | 14.1 | 3  | 0.2 |
| HCM LOS              | C  | B    |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1WBLn1  | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------------|-------|-----|-----|
| Capacity (veh/h)      | 641  | -   | -   | 456 405     | 713   | -   | -   |
| HCM Lane V/C Ratio    | 0.19 | -   | -   | 0.443 0.024 | 0.012 | -   | -   |
| HCM Control Delay (s) | 11.9 | 0.6 | -   | 19 14.1     | 10.1  | -   | -   |
| HCM Lane LOS          | B    | A   | -   | C B         | B     | -   | -   |
| HCM 95th %tile Q(veh) | 0.7  | -   | -   | 2.2 0.1     | 0     | -   | -   |

# Timings

## 1: Yale Blvd & Gibson Blvd

08/05/2021

|                      |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Configurations  |  |  |  |  |  |  |   |    |  |  |  |
| Traffic Volume (vph) | 275                                                                               | 1586                                                                              | 186                                                                               | 198                                                                               | 719                                                                               | 56                                                                                | 93                                                                                 | 157                                                                                 | 208                                                                                 | 97                                                                                  | 129                                                                                 |
| Future Volume (vph)  | 275                                                                               | 1586                                                                              | 186                                                                               | 198                                                                               | 719                                                                               | 56                                                                                | 93                                                                                 | 157                                                                                 | 208                                                                                 | 97                                                                                  | 129                                                                                 |
| Turn Type            | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |
| Protected Phases     | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                  | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |
| Permitted Phases     | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 4                                                                                  |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     |
| Detector Phase       | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 | 6                                                                                 | 7                                                                                  | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   |
| Switch Phase         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                                | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                               | 25.0                                                                                | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                |
| Total Split (s)      | 30.0                                                                              | 29.2                                                                              | 29.2                                                                              | 30.4                                                                              | 29.6                                                                              | 29.6                                                                              | 30.4                                                                               | 30.0                                                                                | 30.0                                                                                | 30.4                                                                                | 30.0                                                                                |
| Total Split (%)      | 25.0%                                                                             | 24.3%                                                                             | 24.3%                                                                             | 25.3%                                                                             | 24.7%                                                                             | 24.7%                                                                             | 25.3%                                                                              | 25.0%                                                                               | 25.0%                                                                               | 25.3%                                                                               | 25.0%                                                                               |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                                | 3.0                                                                                 | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                 |
| 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)  | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                                | 7.0                                                                                 | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                 |
| Lead/Lag             | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode          | Max                                                                               | C-Max                                                                             | C-Max                                                                             | None                                                                              | C-Max                                                                             | C-Max                                                                             | None                                                                               | None                                                                                | None                                                                                | None                                                                                | None                                                                                |
| Act Effect Green (s) | 77.0                                                                              | 54.9                                                                              | 54.9                                                                              | 40.3                                                                              | 22.6                                                                              | 22.6                                                                              | 26.5                                                                               | 16.0                                                                                | 16.0                                                                                | 32.3                                                                                | 18.9                                                                                |
| Actuated g/C Ratio   | 0.64                                                                              | 0.46                                                                              | 0.46                                                                              | 0.34                                                                              | 0.19                                                                              | 0.19                                                                              | 0.22                                                                               | 0.13                                                                                | 0.13                                                                                | 0.27                                                                                | 0.16                                                                                |
| v/c Ratio            | 0.39                                                                              | 0.74                                                                              | 0.26                                                                              | 0.74                                                                              | 0.82                                                                              | 0.16                                                                              | 0.18                                                                               | 0.36                                                                                | 0.56                                                                                | 0.31                                                                                | 0.46                                                                                |
| Control Delay        | 14.3                                                                              | 30.6                                                                              | 10.1                                                                              | 45.0                                                                              | 54.7                                                                              | 0.8                                                                               | 32.1                                                                               | 49.8                                                                                | 11.8                                                                                | 34.6                                                                                | 23.2                                                                                |
| 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          | 14.3                                                                              | 30.6                                                                              | 10.1                                                                              | 45.0                                                                              | 54.7                                                                              | 0.8                                                                               | 32.1                                                                               | 49.8                                                                                | 11.8                                                                                | 34.6                                                                                | 23.2                                                                                |
| LOS                  | B                                                                                 | C                                                                                 | B                                                                                 | D                                                                                 | D                                                                                 | A                                                                                 | C                                                                                  | D                                                                                   | B                                                                                   | C                                                                                   | C                                                                                   |
| Approach Delay       |                                                                                   | 26.5                                                                              |                                                                                   |                                                                                   | 49.6                                                                              |                                                                                   |                                                                                    | 29.0                                                                                |                                                                                     |                                                                                     | 26.2                                                                                |
| Approach LOS         |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     | C                                                                                   |

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 32.6

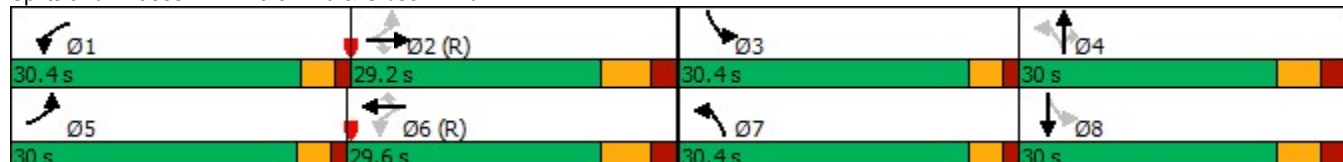
Intersection LOS: C

Intersection Capacity Utilization 79.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



## Queues

## 1: Yale Blvd &amp; Gibson Blvd

08/05/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 299  | 1724 | 202  | 215  | 782  | 61   | 101  | 171  | 226  | 105  | 299  |
| v/c Ratio               | 0.39 | 0.74 | 0.26 | 0.74 | 0.82 | 0.16 | 0.18 | 0.36 | 0.56 | 0.31 | 0.46 |
| Control Delay           | 14.3 | 30.6 | 10.1 | 45.0 | 54.7 | 0.8  | 32.1 | 49.8 | 11.8 | 34.6 | 23.2 |
| 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             | 14.3 | 30.6 | 10.1 | 45.0 | 54.7 | 0.8  | 32.1 | 49.8 | 11.8 | 34.6 | 23.2 |
| Queue Length 50th (ft)  | 98   | 392  | 33   | 97   | 215  | 0    | 29   | 64   | 0    | 62   | 51   |
| Queue Length 95th (ft)  | 187  | #540 | 96   | 164  | 265  | 0    | 49   | 100  | 73   | 104  | 93   |
| Internal Link Dist (ft) |      | 278  |      |      | 518  |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |      | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 767  | 2324 | 791  | 451  | 957  | 393  | 879  | 678  | 486  | 450  | 752  |
| 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       | 0.39 | 0.74 | 0.26 | 0.48 | 0.82 | 0.16 | 0.11 | 0.25 | 0.47 | 0.23 | 0.40 |

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

08/05/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                       |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |   |  |
| Traffic Volume (veh/h)       | 275                                                                               | 1586                                                                                                                                                                                                                                                  | 186                                                                               | 198                                                                               | 719                                                                                                                                                                                                                                                   | 56                                                                                | 93                                                                                                                                                                      | 157                                                                                                                                                                     | 208                                                                                 | 97                                                                                  | 129                                                                                                                                                                     | 146                                                                                 |
| Future Volume (veh/h)        | 275                                                                               | 1586                                                                                                                                                                                                                                                  | 186                                                                               | 198                                                                               | 719                                                                                                                                                                                                                                                   | 56                                                                                | 93                                                                                                                                                                      | 157                                                                                                                                                                     | 208                                                                                 | 97                                                                                  | 129                                                                                                                                                                     | 146                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                                                                                                         | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                                                                                                                    | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                    | 1870                                                                                |
| Adj Flow Rate, veh/h         | 299                                                                               | 1724                                                                                                                                                                                                                                                  | 202                                                                               | 215                                                                               | 782                                                                                                                                                                                                                                                   | 61                                                                                | 101                                                                                                                                                                     | 171                                                                                                                                                                     | 226                                                                                 | 105                                                                                 | 140                                                                                                                                                                     | 159                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                                                                                                                    | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                       | 2                                                                                   |
| Cap, veh/h                   | 604                                                                               | 2478                                                                                                                                                                                                                                                  | 769                                                                               | 280                                                                               | 1876                                                                                                                                                                                                                                                  | 582                                                                               | 467                                                                                                                                                                     | 575                                                                                                                                                                     | 257                                                                                 | 297                                                                                 | 330                                                                                                                                                                     | 294                                                                                 |
| Arrive On Green              | 0.21                                                                              | 0.49                                                                                                                                                                                                                                                  | 0.49                                                                              | 0.09                                                                              | 0.37                                                                                                                                                                                                                                                  | 0.37                                                                              | 0.04                                                                                                                                                                    | 0.16                                                                                                                                                                    | 0.16                                                                                | 0.07                                                                                | 0.19                                                                                                                                                                    | 0.19                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 3456                                                                                                                                                                    | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Grp Volume(v), veh/h         | 299                                                                               | 1724                                                                                                                                                                                                                                                  | 202                                                                               | 215                                                                               | 782                                                                                                                                                                                                                                                   | 61                                                                                | 101                                                                                                                                                                     | 171                                                                                                                                                                     | 226                                                                                 | 105                                                                                 | 140                                                                                                                                                                     | 159                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1728                                                                                                                                                                    | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Q Serve(g_s), s              | 9.8                                                                               | 31.5                                                                                                                                                                                                                                                  | 9.0                                                                               | 8.9                                                                               | 13.7                                                                                                                                                                                                                                                  | 3.0                                                                               | 2.9                                                                                                                                                                     | 5.1                                                                                                                                                                     | 16.7                                                                                | 5.8                                                                                 | 8.4                                                                                                                                                                     | 10.9                                                                                |
| Cycle Q Clear(g_c), s        | 9.8                                                                               | 31.5                                                                                                                                                                                                                                                  | 9.0                                                                               | 8.9                                                                               | 13.7                                                                                                                                                                                                                                                  | 3.0                                                                               | 2.9                                                                                                                                                                     | 5.1                                                                                                                                                                     | 16.7                                                                                | 5.8                                                                                 | 8.4                                                                                                                                                                     | 10.9                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 604                                                                               | 2478                                                                                                                                                                                                                                                  | 769                                                                               | 280                                                                               | 1876                                                                                                                                                                                                                                                  | 582                                                                               | 467                                                                                                                                                                     | 575                                                                                                                                                                     | 257                                                                                 | 297                                                                                 | 330                                                                                                                                                                     | 294                                                                                 |
| V/C Ratio(X)                 | 0.50                                                                              | 0.70                                                                                                                                                                                                                                                  | 0.26                                                                              | 0.77                                                                              | 0.42                                                                                                                                                                                                                                                  | 0.10                                                                              | 0.22                                                                                                                                                                    | 0.30                                                                                                                                                                    | 0.88                                                                                | 0.35                                                                                | 0.42                                                                                                                                                                    | 0.54                                                                                |
| Avail Cap(c_a), veh/h        | 604                                                                               | 2478                                                                                                                                                                                                                                                  | 769                                                                               | 496                                                                               | 1876                                                                                                                                                                                                                                                  | 582                                                                               | 1065                                                                                                                                                                    | 681                                                                                                                                                                     | 304                                                                                 | 562                                                                                 | 341                                                                                                                                                                     | 304                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 13.6                                                                              | 24.0                                                                                                                                                                                                                                                  | 18.2                                                                              | 24.6                                                                              | 28.4                                                                                                                                                                                                                                                  | 25.0                                                                              | 39.4                                                                                                                                                                    | 44.3                                                                                                                                                                    | 49.2                                                                                | 37.8                                                                                | 43.2                                                                                                                                                                    | 44.2                                                                                |
| Incr Delay (d2), s/veh       | 2.9                                                                               | 1.6                                                                                                                                                                                                                                                   | 0.8                                                                               | 4.4                                                                               | 0.7                                                                                                                                                                                                                                                   | 0.4                                                                               | 0.2                                                                                                                                                                     | 0.3                                                                                                                                                                     | 22.0                                                                                | 0.7                                                                                 | 0.9                                                                                                                                                                     | 1.8                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 4.0                                                                               | 12.2                                                                                                                                                                                                                                                  | 3.4                                                                               | 3.8                                                                               | 5.5                                                                                                                                                                                                                                                   | 1.2                                                                               | 1.2                                                                                                                                                                     | 2.2                                                                                                                                                                     | 8.1                                                                                 | 2.5                                                                                 | 3.7                                                                                                                                                                     | 4.4                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d),s/veh         | 16.5                                                                              | 25.6                                                                                                                                                                                                                                                  | 19.0                                                                              | 29.0                                                                              | 29.0                                                                                                                                                                                                                                                  | 25.3                                                                              | 39.6                                                                                                                                                                    | 44.6                                                                                                                                                                    | 71.1                                                                                | 38.5                                                                                | 44.1                                                                                                                                                                    | 46.0                                                                                |
| LnGrp LOS                    | B                                                                                 | C                                                                                                                                                                                                                                                     | B                                                                                 | C                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                 | D                                                                                                                                                                       | D                                                                                                                                                                       | E                                                                                   | D                                                                                   | D                                                                                                                                                                       | D                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 2225                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 1058                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 498                                                                                                                                                                     |                                                                                     |                                                                                     | 404                                                                                                                                                                     |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 23.8                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 28.8                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 55.6                                                                                                                                                                    |                                                                                     |                                                                                     | 43.4                                                                                                                                                                    |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | E                                                                                                                                                                       |                                                                                     |                                                                                     | D                                                                                                                                                                       |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 15.8                                                                              | 65.2                                                                                                                                                                                                                                                  | 12.5                                                                              | 26.4                                                                              | 30.0                                                                                                                                                                                                                                                  | 51.1                                                                              | 9.6                                                                                                                                                                     | 29.3                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 25.9                                                                              | 22.2                                                                                                                                                                                                                                                  | 25.9                                                                              | 23.0                                                                              | 25.5                                                                                                                                                                                                                                                  | 22.6                                                                              | 25.9                                                                                                                                                                    | 23.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 10.9                                                                              | 33.5                                                                                                                                                                                                                                                  | 7.8                                                                               | 18.7                                                                              | 11.8                                                                                                                                                                                                                                                  | 15.7                                                                              | 4.9                                                                                                                                                                     | 12.9                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.5                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.7                                                                               | 0.7                                                                                                                                                                                                                                                   | 2.8                                                                               | 0.3                                                                                                                                                                     | 1.1                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       | 30.8                                                                              |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       | C                                                                                 |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

08/05/2021

Intersection

Int Delay, s/veh 7.5

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 2032 | 90   | 93   | 956  | 0    | 62   |
| Future Vol, veh/h        | 2032 | 90   | 93   | 956  | 0    | 62   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 2209 | 98   | 101  | 1039 | 0    | 67   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 2307   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 5.34   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.12   | -      |
| Pot Cap-1 Maneuver   | -      | ~ 87   | 0      |
| Stage 1              | -      | -      | 0      |
| Stage 2              | -      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | ~ 87   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB   | NB   |
|----------------------|----|------|------|
| HCM Control Delay, s | 0  | 20.8 | 37.6 |
| HCM LOS              |    |      | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 176   | -   | -   | ~ 87  | -   |
| HCM Lane V/C Ratio    | 0.383 | -   | -   | 1.162 | -   |
| HCM Control Delay (s) | 37.6  | -   | -   | 234.3 | -   |
| HCM Lane LOS          | E     | -   | -   | F     | -   |
| HCM 95th %tile Q(veh) | 1.7   | -   | -   | 7.1   | -   |

Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 6.1

**Movement** EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 8    | 17                                                                                | 55                                                                                | 54   | 176                                                                               | 7                                                                                 |
| Future Vol, veh/h        | 8    | 17                                                                                | 55                                                                                | 54   | 176                                                                               | 7                                                                                 |
| 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                                                                                 | 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                | 9    | 18                                                                                | 60                                                                                | 59   | 191                                                                               | 8                                                                                 |

**Major/Minor** Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 119   | 0 | - | 0 | 126   | 90    |
| Stage 1              | -     | - | - | - | 90    | -     |
| Stage 2              | -     | - | - | - | 36    | -     |
| 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   | 1469  | - | - | - | 869   | 968   |
| Stage 1              | -     | - | - | - | 934   | -     |
| Stage 2              | -     | - | - | - | 986   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1469  | - | - | - | 864   | 968   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 864   | -     |
| Stage 1              | -     | - | - | - | 928   | -     |
| Stage 2              | -     | - | - | - | 986   | -     |

**Approach** EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 2.4 | 0 | 10.2 |
| HCM LOS              |     |   | B    |

**Minor Lane/Major Mvmt** EBL EBT WBT WBR SBLn1 SBLn2

|                       |       |   |   |   |       |       |
|-----------------------|-------|---|---|---|-------|-------|
| Capacity (veh/h)      | 1469  | - | - | - | 864   | 968   |
| HCM Lane V/C Ratio    | 0.006 | - | - | - | 0.221 | 0.008 |
| HCM Control Delay (s) | 7.5   | 0 | - | - | 10.3  | 8.7   |
| HCM Lane LOS          | A     | A | - | - | B     | A     |
| HCM 95th %tile Q(veh) | 0     | - | - | - | 0.8   | 0     |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

08/05/2021

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.5  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↰    | ↱    |      | ↰    | ↱    | ↰    | ↱    |      | ↰    | ↱    |      |
| Traffic Vol, veh/h       | 35   | 0    | 151  | 2    | 0    | 7    | 112  | 416  | 1    | 8    | 416  | 91   |
| Future Vol, veh/h        | 35   | 0    | 151  | 2    | 0    | 7    | 112  | 416  | 1    | 8    | 416  | 91   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | 100  | -    | -    | -    | 200  | -    | -    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 38   | 0    | 164  | 2    | 0    | 8    | 122  | 452  | 1    | 9    | 452  | 99   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 945    | 1217 | 276    | 896  | 1266   | 227  | 551    | 0 | 0 | 453  | 0 | 0 |
| Stage 1              | 520    | 520  | -      | 697  | 697    | -    | -      | - | - | -    | - | - |
| Stage 2              | 425    | 697  | -      | 199  | 569    | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.44   | 6.54 | 7.14   | 6.44 | 6.54   | 7.14 | 5.34   | - | - | 5.34 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 7.34 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.74   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.82   | 4.02 | 3.92   | 3.82 | 4.02   | 3.92 | 3.12   | - | - | 3.12 | - | - |
| Pot Cap-1 Maneuver   | 275    | 180  | 615    | 294  | 168    | 661  | 641    | - | - | 713  | - | - |
| Stage 1              | 425    | 530  | -      | 322  | 441    | -    | -      | - | - | -    | - | - |
| Stage 2              | 528    | 441  | -      | 720  | 504    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 230    | 144  | 615    | 182  | 134    | 661  | 641    | - | - | 713  | - | - |
| Mov Cap-2 Maneuver   | 230    | 144  | -      | 182  | 134    | -    | -      | - | - | -    | - | - |
| Stage 1              | 344    | 523  | -      | 261  | 357    | -    | -      | - | - | -    | - | - |
| Stage 2              | 423    | 357  | -      | 521  | 497    | -    | -      | - | - | -    | - | - |

| Approach             | EB | WB   | NB  | SB  |
|----------------------|----|------|-----|-----|
| HCM Control Delay, s | 15 | 13.8 | 2.5 | 0.2 |
| HCM LOS              | C  | B    |     |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 641  | -   | -   | 230   | 615   | 417   | 713   | -   | -   |
| HCM Lane V/C Ratio    | 0.19 | -   | -   | 0.165 | 0.267 | 0.023 | 0.012 | -   | -   |
| HCM Control Delay (s) | 11.9 | -   | -   | 23.7  | 13    | 13.8  | 10.1  | -   | -   |
| HCM Lane LOS          | B    | -   | -   | C     | B     | B     | B     | -   | -   |
| HCM 95th %tile Q(veh) | 0.7  | -   | -   | 0.6   | 1.1   | 0.1   | 0     | -   | -   |

Intersection

Int Delay, s/veh 2.5

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 17   | 132                                                                               | 132                                                                               | 71   | 56                                                                                | 33   |
| Future Vol, veh/h        | 17   | 132                                                                               | 132                                                                               | 71   | 56                                                                                | 33   |
| 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                | 18   | 143                                                                               | 143                                                                               | 77   | 61                                                                                | 36   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 220   | 0 | - | 0 | 361   | 182   |
| Stage 1              | -     | - | - | - | 182   | -     |
| Stage 2              | -     | - | - | - | 179   | -     |
| 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   | 1349  | - | - | - | 638   | 861   |
| Stage 1              | -     | - | - | - | 849   | -     |
| Stage 2              | -     | - | - | - | 852   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1349  | - | - | - | 629   | 861   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 629   | -     |
| Stage 1              | -     | - | - | - | 837   | -     |
| Stage 2              | -     | - | - | - | 852   | -     |

Approach EB WB SB

|                      |     |   |    |
|----------------------|-----|---|----|
| HCM Control Delay, s | 0.9 | 0 | 11 |
| HCM LOS              |     |   | B  |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1349  | - | - | - | 699   |
| HCM Lane V/C Ratio    | 0.014 | - | - | - | 0.138 |
| HCM Control Delay (s) | 7.7   | 0 | - | - | 11    |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0     | - | - | - | 0.5   |

Intersection

Int Delay, s/veh 3.7

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 34   | 77                                                                                | 92                                                                                | 71   | 72                                                                                | 33   |
| Future Vol, veh/h        | 34   | 77                                                                                | 92                                                                                | 71   | 72                                                                                | 33   |
| 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                | 37   | 84                                                                                | 100                                                                               | 77   | 78                                                                                | 36   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 177   | 0 | - | 0 | 297   | 139   |
| Stage 1              | -     | - | - | - | 139   | -     |
| Stage 2              | -     | - | - | - | 158   | -     |
| 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   | 1399  | - | - | - | 694   | 909   |
| Stage 1              | -     | - | - | - | 888   | -     |
| Stage 2              | -     | - | - | - | 871   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1399  | - | - | - | 675   | 909   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 675   | -     |
| Stage 1              | -     | - | - | - | 863   | -     |
| Stage 2              | -     | - | - | - | 871   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 2.3 | 0 | 10.8 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1399  | - | - | - | 734   |
| HCM Lane V/C Ratio    | 0.026 | - | - | - | 0.155 |
| HCM Control Delay (s) | 7.6   | 0 | - | - | 10.8  |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0.1   | - | - | - | 0.5   |

Intersection

Int Delay, s/veh 3

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 34   | 158                                                                               | 76                                                                                | 54   | 56                                                                                | 33   |
| Future Vol, veh/h        | 34   | 158                                                                               | 76                                                                                | 54   | 56                                                                                | 33   |
| 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                | 37   | 172                                                                               | 83                                                                                | 59   | 61                                                                                | 36   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 142   | 0 | - | 0 | 359   | 113   |
| Stage 1              | -     | - | - | - | 113   | -     |
| Stage 2              | -     | - | - | - | 246   | -     |
| 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   | 1441  | - | - | - | 640   | 940   |
| Stage 1              | -     | - | - | - | 912   | -     |
| Stage 2              | -     | - | - | - | 795   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1441  | - | - | - | 622   | 940   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 622   | -     |
| Stage 1              | -     | - | - | - | 886   | -     |
| Stage 2              | -     | - | - | - | 795   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 1.3 | 0 | 10.9 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1441  | - | - | - | 711   |
| HCM Lane V/C Ratio    | 0.026 | - | - | - | 0.136 |
| HCM Control Delay (s) | 7.6   | 0 | - | - | 10.9  |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0.1   | - | - | - | 0.5   |

Intersection

Int Delay, s/veh 3

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  |      |      | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1954 | 139  | 0    | 1049 | 0    | 123  |
| Future Vol, veh/h        | 1954 | 139  | 0    | 1049 | 0    | 123  |
| 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                | 2124 | 151  | 0    | 1140 | 0    | 134  |

| Major/Minor          | Major1 | Major2 | Minor1  |
|----------------------|--------|--------|---------|
| Conflicting Flow All | 0      | 0      | - 1138  |
| Stage 1              | -      | -      | - -     |
| Stage 2              | -      | -      | - -     |
| Critical Hdwy        | -      | -      | - 7.14  |
| Critical Hdwy Stg 1  | -      | -      | - -     |
| Critical Hdwy Stg 2  | -      | -      | - -     |
| Follow-up Hdwy       | -      | -      | - 3.92  |
| Pot Cap-1 Maneuver   | -      | - 0    | - 0 168 |
| Stage 1              | -      | - 0    | - 0 -   |
| Stage 2              | -      | - 0    | - 0 -   |
| Platoon blocked, %   | -      | -      | -       |
| Mov Cap-1 Maneuver   | -      | -      | - 168   |
| Mov Cap-2 Maneuver   | -      | -      | - -     |
| Stage 1              | -      | -      | - -     |
| Stage 2              | -      | -      | - -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 79.4 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 168   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.796 | -   | -   | -   |
| HCM Control Delay (s) | 79.4  | -   | -   | -   |
| HCM Lane LOS          | F     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 5.3   | -   | -   | -   |

Intersection

Int Delay, s/veh 2.9

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  |      |      | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1941 | 122  | 0    | 1048 | 0    | 123  |
| Future Vol, veh/h        | 1941 | 122  | 0    | 1048 | 0    | 123  |
| 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                | 2110 | 133  | 0    | 1139 | 0    | 134  |

| Major/Minor          | Major1 | Major2 | Minor1  |
|----------------------|--------|--------|---------|
| Conflicting Flow All | 0      | 0      | - 1122  |
| Stage 1              | -      | -      | - -     |
| Stage 2              | -      | -      | - -     |
| Critical Hdwy        | -      | -      | - 7.14  |
| Critical Hdwy Stg 1  | -      | -      | - -     |
| Critical Hdwy Stg 2  | -      | -      | - -     |
| Follow-up Hdwy       | -      | -      | - 3.92  |
| Pot Cap-1 Maneuver   | -      | - 0    | - 0 172 |
| Stage 1              | -      | - 0    | - 0 -   |
| Stage 2              | -      | - 0    | - 0 -   |
| Platoon blocked, %   | -      | -      | -       |
| Mov Cap-1 Maneuver   | -      | -      | - 172   |
| Mov Cap-2 Maneuver   | -      | -      | - -     |
| Stage 1              | -      | -      | - -     |
| Stage 2              | -      | -      | - -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 75 |
| HCM LOS              |    |    | F  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 172   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.777 | -   | -   | -   |
| HCM Control Delay (s) | 75    | -   | -   | -   |
| HCM Lane LOS          | F     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 5.1   | -   | -   | -   |

#### 4: Walker Rd & Gibson Blvd Performance by movement

| Movement           | EBT  | EBR  | WBL  | WBT | NBR  | All  |
|--------------------|------|------|------|-----|------|------|
| Denied Del/Veh (s) | 0.0  | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| Total Del/Veh (s)  | 13.2 | 12.8 | 27.2 | 0.8 | 29.0 | 10.2 |

#### 10: NW Access & Gibson Blvd Performance by movement

| Movement           | EBT | EBR | WBT | NBR  | All |
|--------------------|-----|-----|-----|------|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0 | 2.1  | 0.1 |
| Total Del/Veh (s)  | 1.3 | 1.9 | 0.3 | 25.2 | 2.0 |

#### 11: NE Site Access & Gibson Blvd Performance by movement

| Movement           | EBT | EBR | WBT | NBR  | All |
|--------------------|-----|-----|-----|------|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0 | 0.4  | 0.0 |
| Total Del/Veh (s)  | 0.7 | 0.9 | 0.2 | 31.6 | 1.6 |

#### Total Zone Performance

| Denied Del/Veh (s) |  |  | 1.3    |  |  |
|--------------------|--|--|--------|--|--|
| Total Del/Veh (s)  |  |  | 2216.3 |  |  |

## Queuing and Blocking Report

### Baseline

08/05/2021

#### Intersection: 4: Walker Rd & Gibson Blvd

| Movement              | EB   | EB   | EB   | EB  | WB  | NB  |
|-----------------------|------|------|------|-----|-----|-----|
| Directions Served     | T    | T    | T    | R   | L   | R   |
| Maximum Queue (ft)    | 1111 | 1136 | 1028 | 22  | 157 | 87  |
| Average Queue (ft)    | 78   | 151  | 37   | 3   | 59  | 42  |
| 95th Queue (ft)       | 544  | 763  | 351  | 16  | 108 | 80  |
| Link Distance (ft)    | 1072 | 1072 | 1072 |     |     | 218 |
| Upstream Blk Time (%) | 0    | 0    |      |     |     |     |
| Queuing Penalty (veh) | 1    | 1    |      |     |     |     |
| Storage Bay Dist (ft) |      |      |      | 125 | 175 |     |
| Storage Blk Time (%)  |      |      |      |     | 0   |     |
| Queuing Penalty (veh) |      |      |      |     | 0   |     |

#### Intersection: 10: NW Access & Gibson Blvd

| Movement              | NB |
|-----------------------|----|
| Directions Served     | R  |
| Maximum Queue (ft)    | 96 |
| Average Queue (ft)    | 67 |
| 95th Queue (ft)       | 99 |
| Link Distance (ft)    | 81 |
| Upstream Blk Time (%) | 6  |
| Queuing Penalty (veh) | 0  |
| Storage Bay Dist (ft) |    |
| Storage Blk Time (%)  |    |
| Queuing Penalty (veh) |    |

#### Intersection: 11: NE Site Access & Gibson Blvd

| Movement              | EB | EB  | NB  |
|-----------------------|----|-----|-----|
| Directions Served     | T  | TR  | R   |
| Maximum Queue (ft)    | 97 | 122 | 114 |
| Average Queue (ft)    | 11 | 15  | 59  |
| 95th Queue (ft)       | 56 | 77  | 106 |
| Link Distance (ft)    | 97 | 97  | 99  |
| Upstream Blk Time (%) | 0  | 1   | 5   |
| Queuing Penalty (veh) | 1  | 5   | 0   |
| Storage Bay Dist (ft) |    |     |     |
| Storage Blk Time (%)  |    |     |     |
| Queuing Penalty (veh) |    |     |     |

#### Zone Summary

Zone wide Queuing Penalty: 8

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

08/06/2021

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 6.9  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      | ↕↕↕  |      |      | ↕↕↕  |      |      |
| Traffic Vol, veh/h       | 26   | 2    | 140  | 7    | 1    | 16   | 95   | 616  | 3    | 33   | 832  | 71   |
| Future Vol, veh/h        | 26   | 2    | 140  | 7    | 1    | 16   | 95   | 616  | 3    | 33   | 832  | 71   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 28   | 2    | 152  | 8    | 1    | 17   | 103  | 670  | 3    | 36   | 904  | 77   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1490   | 1894 | 491    | 1313 | 1931   | 337  | 981    | 0 | 0 | 673  | 0 | 0 |
| Stage 1              | 1015   | 1015 | -      | 878  | 878    | -    | -      | - | - | -    | - | - |
| Stage 2              | 475    | 879  | -      | 435  | 1053   | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.44   | 6.54 | 7.14   | 6.44 | 6.54   | 7.14 | 5.34   | - | - | 5.34 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 7.34 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.74   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.82   | 4.02 | 3.92   | 3.82 | 4.02   | 3.92 | 3.12   | - | - | 3.12 | - | - |
| Pot Cap-1 Maneuver   | 131    | 69   | 448    | 167  | 65     | 562  | 400    | - | - | 561  | - | - |
| Stage 1              | 194    | 314  | -      | 242  | 364    | -    | -      | - | - | -    | - | - |
| Stage 2              | 493    | 363  | -      | 521  | 301    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 81     | 38   | 448    | 69   | 36     | 562  | 400    | - | - | 561  | - | - |
| Mov Cap-2 Maneuver   | 81     | 38   | -      | 69   | 36     | -    | -      | - | - | -    | - | - |
| Stage 1              | 114    | 294  | -      | 143  | 214    | -    | -      | - | - | -    | - | - |
| Stage 2              | 280    | 214  | -      | 320  | 282    | -    | -      | - | - | -    | - | - |

| Approach             | EB | WB   | NB  | SB  |
|----------------------|----|------|-----|-----|
| HCM Control Delay, s | 53 | 33.5 | 3.7 | 0.4 |
| HCM LOS              | F  | D    |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 400   | -   | -   | 245        | 152   | 561   | -   |
| HCM Lane V/C Ratio    | 0.258 | -   | -   | 0.745      | 0.172 | 0.064 | -   |
| HCM Control Delay (s) | 17.1  | 1.6 | -   | 53         | 33.5  | 11.9  | -   |
| HCM Lane LOS          | C     | A   | -   | F          | D     | B     | -   |
| HCM 95th %tile Q(veh) | 1     | -   | -   | 5.2        | 0.6   | 0.2   | -   |

# Timings

## 1: Yale Blvd & Gibson Blvd

08/05/2021

|                      |  |  |  |  |  |  |   |  |  |  |  |
|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Configurations  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 244                                                                               | 772                                                                               | 273                                                                               | 364                                                                               | 1965                                                                              | 117                                                                               | 228                                                                                 | 183                                                                                 | 247                                                                                 | 93                                                                                  | 299                                                                                 |
| Future Volume (vph)  | 244                                                                               | 772                                                                               | 273                                                                               | 364                                                                               | 1965                                                                              | 117                                                                               | 228                                                                                 | 183                                                                                 | 247                                                                                 | 93                                                                                  | 299                                                                                 |
| Turn Type            | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                               | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |
| Protected Phases     | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 7                                                                                   | 4                                                                                   |                                                                                     | 3                                                                                   | 8                                                                                   |
| Permitted Phases     | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 4                                                                                   |                                                                                     | 4                                                                                   | 8                                                                                   |                                                                                     |
| Detector Phase       | 5                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 6                                                                                 | 6                                                                                 | 7                                                                                   | 4                                                                                   | 4                                                                                   | 3                                                                                   | 8                                                                                   |
| Switch Phase         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                               | 16.0                                                                              | 16.0                                                                              | 3.0                                                                                 | 16.0                                                                                | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                              | 25.0                                                                              | 25.0                                                                              | 24.5                                                                                | 25.0                                                                                | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                |
| Total Split (s)      | 33.0                                                                              | 32.0                                                                              | 32.0                                                                              | 32.5                                                                              | 31.5                                                                              | 31.5                                                                              | 32.5                                                                                | 33.0                                                                                | 33.0                                                                                | 32.5                                                                                | 33.0                                                                                |
| Total Split (%)      | 25.4%                                                                             | 24.6%                                                                             | 24.6%                                                                             | 25.0%                                                                             | 24.2%                                                                             | 24.2%                                                                             | 25.0%                                                                               | 25.4%                                                                               | 25.4%                                                                               | 25.0%                                                                               | 25.4%                                                                               |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                 |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                               | 2.5                                                                               | 2.5                                                                               | 1.5                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                 |
| 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)  | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                               | 7.0                                                                               | 7.0                                                                               | 4.5                                                                                 | 7.0                                                                                 | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                 |
| Lead/Lag             | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode          | Max                                                                               | C-Max                                                                             | C-Max                                                                             | None                                                                              | Max                                                                               | Max                                                                               | None                                                                                | None                                                                                | None                                                                                | None                                                                                | None                                                                                |
| Act Effct Green (s)  | 77.2                                                                              | 40.7                                                                              | 40.7                                                                              | 57.3                                                                              | 24.5                                                                              | 24.5                                                                              | 40.7                                                                                | 25.3                                                                                | 25.3                                                                                | 36.2                                                                                | 23.0                                                                                |
| Actuated g/C Ratio   | 0.59                                                                              | 0.31                                                                              | 0.31                                                                              | 0.44                                                                              | 0.19                                                                              | 0.19                                                                              | 0.31                                                                                | 0.19                                                                                | 0.19                                                                                | 0.28                                                                                | 0.18                                                                                |
| v/c Ratio            | 0.38                                                                              | 0.53                                                                              | 0.42                                                                              | 0.74                                                                              | 2.23                                                                              | 0.33                                                                              | 0.51                                                                                | 0.29                                                                                | 0.51                                                                                | 0.27                                                                                | 0.79                                                                                |
| Control Delay        | 18.9                                                                              | 40.5                                                                              | 6.7                                                                               | 29.6                                                                              | 582.2                                                                             | 13.7                                                                              | 34.1                                                                                | 44.8                                                                                | 8.3                                                                                 | 31.1                                                                                | 50.4                                                                                |
| 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          | 18.9                                                                              | 40.5                                                                              | 6.7                                                                               | 29.6                                                                              | 582.2                                                                             | 13.7                                                                              | 34.1                                                                                | 44.8                                                                                | 8.3                                                                                 | 31.1                                                                                | 50.4                                                                                |
| LOS                  | B                                                                                 | D                                                                                 | A                                                                                 | C                                                                                 | F                                                                                 | B                                                                                 | C                                                                                   | D                                                                                   | A                                                                                   | C                                                                                   | D                                                                                   |
| Approach Delay       |                                                                                   | 29.3                                                                              |                                                                                   |                                                                                   | 472.7                                                                             |                                                                                   |                                                                                     | 27.4                                                                                |                                                                                     |                                                                                     | 47.3                                                                                |
| Approach LOS         |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     | D                                                                                   |

### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.23

Intersection Signal Delay: 249.1

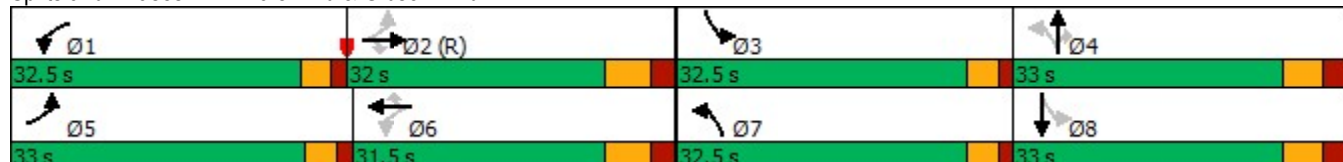
Intersection LOS: F

Intersection Capacity Utilization 91.5%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



## Queues

## 1: Yale Blvd &amp; Gibson Blvd

08/05/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 265  | 839  | 297  | 396  | 2136  | 127  | 248  | 199  | 268  | 101  | 533  |
| v/c Ratio               | 0.38 | 0.53 | 0.42 | 0.74 | 2.23  | 0.33 | 0.51 | 0.29 | 0.51 | 0.27 | 0.79 |
| Control Delay           | 18.9 | 40.5 | 6.7  | 29.6 | 582.2 | 13.7 | 34.1 | 44.8 | 8.3  | 31.1 | 50.4 |
| 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             | 18.9 | 40.5 | 6.7  | 29.6 | 582.2 | 13.7 | 34.1 | 44.8 | 8.3  | 31.1 | 50.4 |
| Queue Length 50th (ft)  | 102  | 215  | 0    | 181  | ~1062 | 13   | 77   | 75   | 0    | 60   | 187  |
| Queue Length 95th (ft)  | 216  | #307 | 79   | 277  | #1156 | 69   | 98   | 106  | 70   | 93   | 239  |
| Internal Link Dist (ft) |      | 278  |      |      | 518   |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |       | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 694  | 1593 | 699  | 554  | 958   | 386  | 816  | 749  | 547  | 515  | 761  |
| 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       | 0.38 | 0.53 | 0.42 | 0.71 | 2.23  | 0.33 | 0.30 | 0.27 | 0.49 | 0.20 | 0.70 |

## Intersection Summary

~ 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.

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

08/05/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                      |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |   |  |
| Traffic Volume (veh/h)       | 244                                                                               | 772                                                                                                                                                                                                                                                   | 273                                                                               | 364                                                                               | 1965                                                                                                                                                                                                                                                  | 117                                                                               | 228                                                                                                                                                                     | 183                                                                                                                                                                     | 247                                                                                 | 93                                                                                  | 299                                                                                                                                                                     | 191                                                                                 |
| Future Volume (veh/h)        | 244                                                                               | 772                                                                                                                                                                                                                                                   | 273                                                                               | 364                                                                               | 1965                                                                                                                                                                                                                                                  | 117                                                                               | 228                                                                                                                                                                     | 183                                                                                                                                                                     | 247                                                                                 | 93                                                                                  | 299                                                                                                                                                                     | 191                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                                                                                                         | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                                                                                                                    | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                    | 1870                                                                                |
| Adj Flow Rate, veh/h         | 265                                                                               | 839                                                                                                                                                                                                                                                   | 297                                                                               | 396                                                                               | 2136                                                                                                                                                                                                                                                  | 127                                                                               | 248                                                                                                                                                                     | 199                                                                                                                                                                     | 268                                                                                 | 101                                                                                 | 325                                                                                                                                                                     | 208                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                                                                                                                    | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                       | 2                                                                                   |
| Cap, veh/h                   | 446                                                                               | 2063                                                                                                                                                                                                                                                  | 641                                                                               | 486                                                                               | 1770                                                                                                                                                                                                                                                  | 549                                                                               | 423                                                                                                                                                                     | 691                                                                                                                                                                     | 308                                                                                 | 303                                                                                 | 375                                                                                                                                                                     | 235                                                                                 |
| Arrive On Green              | 0.22                                                                              | 0.40                                                                                                                                                                                                                                                  | 0.40                                                                              | 0.16                                                                              | 0.35                                                                                                                                                                                                                                                  | 0.35                                                                              | 0.08                                                                                                                                                                    | 0.19                                                                                                                                                                    | 0.19                                                                                | 0.06                                                                                | 0.18                                                                                                                                                                    | 0.18                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 3456                                                                                                                                                                    | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 2098                                                                                                                                                                    | 1313                                                                                |
| Grp Volume(v), veh/h         | 265                                                                               | 839                                                                                                                                                                                                                                                   | 297                                                                               | 396                                                                               | 2136                                                                                                                                                                                                                                                  | 127                                                                               | 248                                                                                                                                                                     | 199                                                                                                                                                                     | 268                                                                                 | 101                                                                                 | 274                                                                                                                                                                     | 259                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1728                                                                                                                                                                    | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1634                                                                                |
| Q Serve(g_s), s              | 13.0                                                                              | 15.2                                                                                                                                                                                                                                                  | 17.9                                                                              | 18.3                                                                              | 45.1                                                                                                                                                                                                                                                  | 7.4                                                                               | 7.5                                                                                                                                                                     | 6.2                                                                                                                                                                     | 21.3                                                                                | 5.9                                                                                 | 19.5                                                                                                                                                                    | 20.1                                                                                |
| Cycle Q Clear(g_c), s        | 13.0                                                                              | 15.2                                                                                                                                                                                                                                                  | 17.9                                                                              | 18.3                                                                              | 45.1                                                                                                                                                                                                                                                  | 7.4                                                                               | 7.5                                                                                                                                                                     | 6.2                                                                                                                                                                     | 21.3                                                                                | 5.9                                                                                 | 19.5                                                                                                                                                                    | 20.1                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 0.80                                                                                |
| Lane Grp Cap(c), veh/h       | 446                                                                               | 2063                                                                                                                                                                                                                                                  | 641                                                                               | 486                                                                               | 1770                                                                                                                                                                                                                                                  | 549                                                                               | 423                                                                                                                                                                     | 691                                                                                                                                                                     | 308                                                                                 | 303                                                                                 | 317                                                                                                                                                                     | 292                                                                                 |
| V/C Ratio(X)                 | 0.59                                                                              | 0.41                                                                                                                                                                                                                                                  | 0.46                                                                              | 0.82                                                                              | 1.21                                                                                                                                                                                                                                                  | 0.23                                                                              | 0.59                                                                                                                                                                    | 0.29                                                                                                                                                                    | 0.87                                                                                | 0.33                                                                                | 0.86                                                                                                                                                                    | 0.89                                                                                |
| Avail Cap(c_a), veh/h        | 446                                                                               | 2063                                                                                                                                                                                                                                                  | 641                                                                               | 581                                                                               | 1770                                                                                                                                                                                                                                                  | 549                                                                               | 896                                                                                                                                                                     | 711                                                                                                                                                                     | 317                                                                                 | 575                                                                                 | 355                                                                                                                                                                     | 327                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 32.0                                                                              | 27.6                                                                                                                                                                                                                                                  | 28.4                                                                              | 21.4                                                                              | 42.5                                                                                                                                                                                                                                                  | 30.2                                                                              | 40.5                                                                                                                                                                    | 44.7                                                                                                                                                                    | 50.7                                                                                | 39.7                                                                                | 51.9                                                                                                                                                                    | 52.1                                                                                |
| Incr Delay (d2), s/veh       | 5.7                                                                               | 0.6                                                                                                                                                                                                                                                   | 2.4                                                                               | 7.5                                                                               | 98.6                                                                                                                                                                                                                                                  | 1.0                                                                               | 1.3                                                                                                                                                                     | 0.2                                                                                                                                                                     | 21.5                                                                                | 0.6                                                                                 | 17.9                                                                                                                                                                    | 22.5                                                                                |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 8.0                                                                               | 6.1                                                                                                                                                                                                                                                   | 7.1                                                                               | 8.2                                                                               | 34.3                                                                                                                                                                                                                                                  | 2.9                                                                               | 3.2                                                                                                                                                                     | 2.7                                                                                                                                                                     | 10.1                                                                                | 2.6                                                                                 | 10.1                                                                                                                                                                    | 9.9                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d),s/veh         | 37.7                                                                              | 28.2                                                                                                                                                                                                                                                  | 30.8                                                                              | 28.9                                                                              | 141.1                                                                                                                                                                                                                                                 | 31.1                                                                              | 41.8                                                                                                                                                                    | 44.9                                                                                                                                                                    | 72.2                                                                                | 40.4                                                                                | 69.7                                                                                                                                                                    | 74.6                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                 | C                                                                                 | F                                                                                                                                                                                                                                                     | C                                                                                 | D                                                                                                                                                                       | D                                                                                                                                                                       | E                                                                                   | D                                                                                   | E                                                                                                                                                                       | E                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 1401                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 2659                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 715                                                                                                                                                                     |                                                                                     |                                                                                     | 634                                                                                                                                                                     |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 30.6                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 119.1                                                                                                                                                                                                                                                 |                                                                                   |                                                                                                                                                                         | 54.1                                                                                                                                                                    |                                                                                     |                                                                                     | 67.1                                                                                                                                                                    |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | F                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | D                                                                                                                                                                       |                                                                                     |                                                                                     | E                                                                                                                                                                       |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 25.5                                                                              | 59.5                                                                                                                                                                                                                                                  | 12.6                                                                              | 32.3                                                                              | 33.0                                                                                                                                                                                                                                                  | 52.1                                                                              | 14.7                                                                                                                                                                    | 30.2                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 28.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 28.0                                                                              | 26.0                                                                              | 28.5                                                                                                                                                                                                                                                  | 24.5                                                                              | 28.0                                                                                                                                                                    | 26.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 20.3                                                                              | 19.9                                                                                                                                                                                                                                                  | 7.9                                                                               | 23.3                                                                              | 15.0                                                                                                                                                                                                                                                  | 47.1                                                                              | 9.5                                                                                                                                                                     | 22.1                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.8                                                                               | 2.8                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.6                                                                               | 0.6                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.7                                                                                                                                                                     | 1.1                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 81.5                                                                              |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | F                                                                                 |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

08/05/2021

Intersection

Int Delay, s/veh 0.9

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1310 | 46   | 79   | 2377 | 0    | 62   |
| Future Vol, veh/h        | 1310 | 46   | 79   | 2377 | 0    | 62   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 1424 | 50   | 86   | 2584 | 0    | 67   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1474   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 5.34   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.12   | -      |
| Pot Cap-1 Maneuver   | -      | 230    | 0      |
| Stage 1              | -      | -      | 0      |
| Stage 2              | -      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 230    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 1  | 19.1 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 322   | -   | -   | 230   | -   |
| HCM Lane V/C Ratio    | 0.209 | -   | -   | 0.373 | -   |
| HCM Control Delay (s) | 19.1  | -   | -   | 29.7  | -   |
| HCM Lane LOS          | C     | -   | -   | D     | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 1.6   | -   |

Intersection

Int Delay, s/veh 4.7

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 19   | 24                                                                                | 86                                                                                | 43   | 103                                                                               | 22                                                                                |
| Future Vol, veh/h        | 19   | 24                                                                                | 86                                                                                | 43   | 103                                                                               | 22                                                                                |
| 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                                                                                 | 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   | 26                                                                                | 93                                                                                | 47   | 112                                                                               | 24                                                                                |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 140    | 0      | 0 185 117     |
| Stage 1              | -      | -      | - 117 -       |
| Stage 2              | -      | -      | - 68 -        |
| 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   | 1443   | -      | - 804 935     |
| Stage 1              | -      | -      | - 908 -       |
| Stage 2              | -      | -      | - 955 -       |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1443   | -      | - 792 935     |
| Mov Cap-2 Maneuver   | -      | -      | - 792 -       |
| Stage 1              | -      | -      | - 894 -       |
| Stage 2              | -      | -      | - 955 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.3 | 0  | 10.1 |
| HCM LOS              |     |    | B    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 1443  | -   | -   | -   | 792   | 935   |
| HCM Lane V/C Ratio    | 0.014 | -   | -   | -   | 0.141 | 0.026 |
| HCM Control Delay (s) | 7.5   | 0   | -   | -   | 10.3  | 9     |
| HCM Lane LOS          | A     | A   | -   | -   | B     | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.5   | 0.1   |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

08/05/2021

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.8  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↰    | ↱    |      | ↰    | ↱    | ↰    | ↱    |      | ↰    | ↱    |      |
| Traffic Vol, veh/h       | 26   | 2    | 140  | 7    | 1    | 16   | 95   | 616  | 3    | 33   | 832  | 71   |
| Future Vol, veh/h        | 26   | 2    | 140  | 7    | 1    | 16   | 95   | 616  | 3    | 33   | 832  | 71   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | 100  | -    | -    | -    | 200  | -    | -    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 28   | 2    | 152  | 8    | 1    | 17   | 103  | 670  | 3    | 36   | 904  | 77   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1490   | 1894 | 491    | 1313 | 1931   | 337  | 981    | 0 | 0 | 673  | 0 | 0 |
| Stage 1              | 1015   | 1015 | -      | 878  | 878    | -    | -      | - | - | -    | - | - |
| Stage 2              | 475    | 879  | -      | 435  | 1053   | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.44   | 6.54 | 7.14   | 6.44 | 6.54   | 7.14 | 5.34   | - | - | 5.34 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 7.34 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.74   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.82   | 4.02 | 3.92   | 3.82 | 4.02   | 3.92 | 3.12   | - | - | 3.12 | - | - |
| Pot Cap-1 Maneuver   | 131    | 69   | 448    | 167  | 65     | 562  | 400    | - | - | 561  | - | - |
| Stage 1              | 194    | 314  | -      | 242  | 364    | -    | -      | - | - | -    | - | - |
| Stage 2              | 493    | 363  | -      | 521  | 301    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 95     | 48   | 448    | 81   | 45     | 562  | 400    | - | - | 561  | - | - |
| Mov Cap-2 Maneuver   | 95     | 48   | -      | 81   | 45     | -    | -      | - | - | -    | - | - |
| Stage 1              | 144    | 294  | -      | 180  | 270    | -    | -      | - | - | -    | - | - |
| Stage 2              | 353    | 270  | -      | 320  | 282    | -    | -      | - | - | -    | - | - |

| Approach             | EB   |  | WB   |  | NB  |  | SB  |  |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 25.1 |  | 29.1 |  | 2.3 |  | 0.4 |  |
| HCM LOS              | D    |  | D    |  |     |  |     |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 400   | -   | -   | 89    | 448   | 175   | 561   | -   | -   |
| HCM Lane V/C Ratio    | 0.258 | -   | -   | 0.342 | 0.34  | 0.149 | 0.064 | -   | -   |
| HCM Control Delay (s) | 17.1  | -   | -   | 65.2  | 17.1  | 29.1  | 11.9  | -   | -   |
| HCM Lane LOS          | C     | -   | -   | F     | C     | D     | B     | -   | -   |
| HCM 95th %tile Q(veh) | 1     | -   | -   | 1.3   | 1.5   | 0.5   | 0.2   | -   | -   |

Intersection

Int Delay, s/veh 2.2

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 13   | 121                                                                               | 111                                                                               | 56   | 46                                                                                | 23   |
| Future Vol, veh/h        | 13   | 121                                                                               | 111                                                                               | 56   | 46                                                                                | 23   |
| 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                | 14   | 132                                                                               | 121                                                                               | 61   | 50                                                                                | 25   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 182   | 0 | - | 0 | 312   | 152   |
| Stage 1              | -     | - | - | - | 152   | -     |
| Stage 2              | -     | - | - | - | 160   | -     |
| 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   | 1393  | - | - | - | 681   | 894   |
| Stage 1              | -     | - | - | - | 876   | -     |
| Stage 2              | -     | - | - | - | 869   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1393  | - | - | - | 674   | 894   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 674   | -     |
| Stage 1              | -     | - | - | - | 866   | -     |
| Stage 2              | -     | - | - | - | 869   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 0.7 | 0 | 10.5 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |      |   |   |   |       |
|-----------------------|------|---|---|---|-------|
| Capacity (veh/h)      | 1393 | - | - | - | 734   |
| HCM Lane V/C Ratio    | 0.01 | - | - | - | 0.102 |
| HCM Control Delay (s) | 7.6  | 0 | - | - | 10.5  |
| HCM Lane LOS          | A    | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0    | - | - | - | 0.3   |

Intersection

Int Delay, s/veh 3.3

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 25   | 76                                                                                | 77                                                                                | 56   | 58                                                                                | 23   |
| Future Vol, veh/h        | 25   | 76                                                                                | 77                                                                                | 56   | 58                                                                                | 23   |
| 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                | 27   | 83                                                                                | 84                                                                                | 61   | 63                                                                                | 25   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 145   | 0 | - | 0 | 252   | 115   |
| Stage 1              | -     | - | - | - | 115   | -     |
| Stage 2              | -     | - | - | - | 137   | -     |
| 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   | 1437  | - | - | - | 737   | 937   |
| Stage 1              | -     | - | - | - | 910   | -     |
| Stage 2              | -     | - | - | - | 890   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1437  | - | - | - | 722   | 937   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 722   | -     |
| Stage 1              | -     | - | - | - | 892   | -     |
| Stage 2              | -     | - | - | - | 890   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 1.9 | 0 | 10.3 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1437  | - | - | - | 772   |
| HCM Lane V/C Ratio    | 0.019 | - | - | - | 0.114 |
| HCM Control Delay (s) | 7.6   | 0 | - | - | 10.3  |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0.1   | - | - | - | 0.4   |

Intersection

Int Delay, s/veh 2.6

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 25   | 102                                                                               | 107                                                                               | 43   | 46                                                                                | 23   |
| Future Vol, veh/h        | 25   | 102                                                                               | 107                                                                               | 43   | 46                                                                                | 23   |
| 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                | 27   | 111                                                                               | 116                                                                               | 47   | 50                                                                                | 25   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 163   | 0 | - | 0 | 305   | 140   |
| Stage 1              | -     | - | - | - | 140   | -     |
| Stage 2              | -     | - | - | - | 165   | -     |
| 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   | 1416  | - | - | - | 687   | 908   |
| Stage 1              | -     | - | - | - | 887   | -     |
| Stage 2              | -     | - | - | - | 864   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1416  | - | - | - | 673   | 908   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 673   | -     |
| Stage 1              | -     | - | - | - | 869   | -     |
| Stage 2              | -     | - | - | - | 864   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 1.5 | 0 | 10.4 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1416  | - | - | - | 737   |
| HCM Lane V/C Ratio    | 0.019 | - | - | - | 0.102 |
| HCM Control Delay (s) | 7.6   | 0 | - | - | 10.4  |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0.1   | - | - | - | 0.3   |

Intersection

Int Delay, s/veh 0.5

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  |      |      | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1258 | 114  | 0    | 2456 | 0    | 92   |
| Future Vol, veh/h        | 1258 | 114  | 0    | 2456 | 0    | 92   |
| 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                | 1367 | 124  | 0    | 2670 | 0    | 100  |

| Major/Minor          | Major1 | Major2 | Minor1     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0      | 0      | - - - 746  |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |
| Critical Hdwy        | -      | -      | - - - 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - - -      |
| Critical Hdwy Stg 2  | -      | -      | - - -      |
| Follow-up Hdwy       | -      | -      | - - - 3.92 |
| Pot Cap-1 Maneuver   | -      | -      | 0 - 0 305  |
| Stage 1              | -      | -      | 0 - 0 -    |
| Stage 2              | -      | -      | 0 - 0 -    |
| Platoon blocked, %   | -      | -      | -          |
| Mov Cap-1 Maneuver   | -      | -      | - - - 305  |
| Mov Cap-2 Maneuver   | -      | -      | - - -      |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 22.5 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 305   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.328 | -   | -   | -   |
| HCM Control Delay (s) | 22.5  | -   | -   | -   |
| HCM Lane LOS          | C     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 1.4   | -   | -   | -   |

Intersection

Int Delay, s/veh 0.5

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  |      |      | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1220 | 102  | 0    | 2448 | 0    | 92   |
| Future Vol, veh/h        | 1220 | 102  | 0    | 2448 | 0    | 92   |
| 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                | 1326 | 111  | 0    | 2661 | 0    | 100  |

| Major/Minor          | Major1 | Major2 | Minor1     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0      | 0      | - - - 719  |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |
| Critical Hdwy        | -      | -      | - - - 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - - -      |
| Critical Hdwy Stg 2  | -      | -      | - - -      |
| Follow-up Hdwy       | -      | -      | - - - 3.92 |
| Pot Cap-1 Maneuver   | -      | -      | 0 - 0 318  |
| Stage 1              | -      | -      | 0 - 0 -    |
| Stage 2              | -      | -      | 0 - 0 -    |
| Platoon blocked, %   | -      | -      | -          |
| Mov Cap-1 Maneuver   | -      | -      | - - - 318  |
| Mov Cap-2 Maneuver   | -      | -      | - - -      |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 21.4 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 318   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.314 | -   | -   | -   |
| HCM Control Delay (s) | 21.4  | -   | -   | -   |
| HCM Lane LOS          | C     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 1.3   | -   | -   | -   |

## 4: Walker Rd &amp; Gibson Blvd Performance by movement

| Movement           | EBT | EBR | WBL  | WBT | NBR | All |
|--------------------|-----|-----|------|-----|-----|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s)  | 6.9 | 6.1 | 14.4 | 2.0 | 9.8 | 4.6 |

## 10: NW Access &amp; Gibson Blvd Performance by movement

| Movement           | EBT | EBR | WBT | NBR  | All |
|--------------------|-----|-----|-----|------|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0 | 0.1  | 0.0 |
| Total Del/Veh (s)  | 0.8 | 1.4 | 0.4 | 12.2 | 1.0 |

## 11: NE Site Access &amp; Gibson Blvd Performance by movement

| Movement           | EBT | EBR | WBT | NBR  | All |
|--------------------|-----|-----|-----|------|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0 | 0.1  | 0.0 |
| Total Del/Veh (s)  | 0.2 | 0.2 | 0.3 | 12.6 | 0.7 |

## Total Zone Performance

| Denied Del/Veh (s) |  |  | 0.1   |  |  |
|--------------------|--|--|-------|--|--|
| Total Del/Veh (s)  |  |  | 361.2 |  |  |

## Intersection: 4: Walker Rd &amp; Gibson Blvd

| Movement              | EB   | WB  | NB  |
|-----------------------|------|-----|-----|
| Directions Served     | T    | L   | R   |
| Maximum Queue (ft)    | 899  | 73  | 45  |
| Average Queue (ft)    | 32   | 21  | 21  |
| 95th Queue (ft)       | 307  | 53  | 43  |
| Link Distance (ft)    | 1072 |     | 218 |
| Upstream Blk Time (%) |      |     |     |
| Queuing Penalty (veh) |      |     |     |
| Storage Bay Dist (ft) |      | 175 |     |
| Storage Blk Time (%)  |      |     |     |
| Queuing Penalty (veh) |      |     |     |

## Intersection: 10: NW Access &amp; Gibson Blvd

| Movement              | EB  | WB  | NB |
|-----------------------|-----|-----|----|
| Directions Served     | TR  | T   | R  |
| Maximum Queue (ft)    | 24  | 27  | 96 |
| Average Queue (ft)    | 0   | 1   | 38 |
| 95th Queue (ft)       | 0   | 9   | 68 |
| Link Distance (ft)    | 515 | 169 | 81 |
| Upstream Blk Time (%) |     |     | 1  |
| Queuing Penalty (veh) |     |     | 0  |
| Storage Bay Dist (ft) |     |     |    |
| Storage Blk Time (%)  |     |     |    |
| Queuing Penalty (veh) |     |     |    |

## Intersection: 11: NE Site Access &amp; Gibson Blvd

| Movement              | NB |
|-----------------------|----|
| Directions Served     | R  |
| Maximum Queue (ft)    | 72 |
| Average Queue (ft)    | 41 |
| 95th Queue (ft)       | 68 |
| Link Distance (ft)    | 99 |
| Upstream Blk Time (%) |    |
| Queuing Penalty (veh) |    |
| Storage Bay Dist (ft) |    |
| Storage Blk Time (%)  |    |
| Queuing Penalty (veh) |    |

## Zone Summary

Zone wide Queuing Penalty: 0

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

08/06/2021

| Intersection             |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |                                                                                     |      |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|--------|------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------|------|
| Int Delay, s/veh         | 4.3    |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |                                                                                     |      |      |
| Movement                 | EBL    | EBT                                                                               | EBR    | WBL        | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR  | SBL                                                                                 | SBT  | SBR  |
| Lane Configurations      |        |  |        |            |  |       |        |  |      |  |      |      |
| Traffic Vol, veh/h       | 35     | 0                                                                                 | 151    | 2          | 0                                                                                 | 7     | 112    | 458                                                                               | 1    | 8                                                                                   | 457  | 91   |
| Future Vol, veh/h        | 35     | 0                                                                                 | 151    | 2          | 0                                                                                 | 7     | 112    | 458                                                                               | 1    | 8                                                                                   | 457  | 91   |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0      | 0          | 0                                                                                 | 0     | 0      | 0                                                                                 | 0    | 0                                                                                   | 0    | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop   | Stop       | Stop                                                                              | Stop  | Free   | Free                                                                              | Free | Free                                                                                | Free | Free |
| RT Channelized           | -      | -                                                                                 | None   | -          | -                                                                                 | None  | -      | -                                                                                 | None | -                                                                                   | -    | None |
| Storage Length           | -      | -                                                                                 | -      | -          | -                                                                                 | -     | -      | -                                                                                 | -    | 60                                                                                  | -    | -    |
| Veh in Median Storage, # | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -                                                                                   | 0    | -    |
| Grade, %                 | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -                                                                                   | 0    | -    |
| Peak Hour Factor         | 92     | 92                                                                                | 92     | 92         | 92                                                                                | 92    | 92     | 92                                                                                | 92   | 92                                                                                  | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2      | 2          | 2                                                                                 | 2     | 2      | 2                                                                                 | 2    | 2                                                                                   | 2    | 2    |
| Mvmt Flow                | 38     | 0                                                                                 | 164    | 2          | 0                                                                                 | 8     | 122    | 498                                                                               | 1    | 9                                                                                   | 497  | 99   |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |                                                                                     |      |      |
| Major/Minor              | Minor2 |                                                                                   | Minor1 |            | Major1                                                                            |       | Major2 |                                                                                   |      |                                                                                     |      |      |
| Conflicting Flow All     | 1008   | 1308                                                                              | 298    | 960        | 1357                                                                              | 250   | 596    | 0                                                                                 | 0    | 499                                                                                 | 0    | 0    |
| Stage 1                  | 565    | 565                                                                               | -      | 743        | 743                                                                               | -     | -      | -                                                                                 | -    | -                                                                                   | -    | -    |
| Stage 2                  | 443    | 743                                                                               | -      | 217        | 614                                                                               | -     | -      | -                                                                                 | -    | -                                                                                   | -    | -    |
| Critical Hdwy            | 6.44   | 6.54                                                                              | 7.14   | 6.44       | 6.54                                                                              | 7.14  | 5.34   | -                                                                                 | -    | 5.34                                                                                | -    | -    |
| Critical Hdwy Stg 1      | 7.34   | 5.54                                                                              | -      | 7.34       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -                                                                                   | -    | -    |
| Critical Hdwy Stg 2      | 6.74   | 5.54                                                                              | -      | 6.74       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -                                                                                   | -    | -    |
| Follow-up Hdwy           | 3.82   | 4.02                                                                              | 3.92   | 3.82       | 4.02                                                                              | 3.92  | 3.12   | -                                                                                 | -    | 3.12                                                                                | -    | -    |
| Pot Cap-1 Maneuver       | 253    | 158                                                                               | 596    | 270        | 148                                                                               | 639   | 610    | -                                                                                 | -    | 678                                                                                 | -    | -    |
| Stage 1                  | 396    | 506                                                                               | -      | 299        | 420                                                                               | -     | -      | -                                                                                 | -    | -                                                                                   | -    | -    |
| Stage 2                  | 515    | 420                                                                               | -      | 703        | 481                                                                               | -     | -      | -                                                                                 | -    | -                                                                                   | -    | -    |
| Platoon blocked, %       |        |                                                                                   |        |            |                                                                                   |       |        | -                                                                                 | -    |                                                                                     | -    | -    |
| Mov Cap-1 Maneuver       | 195    | 113                                                                               | 596    | 152        | 106                                                                               | 639   | 610    | -                                                                                 | -    | 678                                                                                 | -    | -    |
| Mov Cap-2 Maneuver       | 195    | 113                                                                               | -      | 152        | 106                                                                               | -     | -      | -                                                                                 | -    | -                                                                                   | -    | -    |
| Stage 1                  | 286    | 499                                                                               | -      | 216        | 304                                                                               | -     | -      | -                                                                                 | -    | -                                                                                   | -    | -    |
| Stage 2                  | 368    | 304                                                                               | -      | 503        | 475                                                                               | -     | -      | -                                                                                 | -    | -                                                                                   | -    | -    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |                                                                                     |      |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |                                                                                     |      |      |
| Approach                 | EB     |                                                                                   | WB     |            | NB                                                                                |       | SB     |                                                                                   |      |                                                                                     |      |      |
| HCM Control Delay, s     | 20.6   |                                                                                   | 14.9   |            | 3                                                                                 |       | 0.1    |                                                                                   |      |                                                                                     |      |      |
| HCM LOS                  | C      |                                                                                   | B      |            |                                                                                   |       |        |                                                                                   |      |                                                                                     |      |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |                                                                                     |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1 | SBL                                                                               | SBT   | SBR    |                                                                                   |      |                                                                                     |      |      |
| Capacity (veh/h)         | 610    | -                                                                                 | -      | 430        | 373                                                                               | 678   | -      | -                                                                                 |      |                                                                                     |      |      |
| HCM Lane V/C Ratio       | 0.2    | -                                                                                 | -      | 0.47       | 0.026                                                                             | 0.013 | -      | -                                                                                 |      |                                                                                     |      |      |
| HCM Control Delay (s)    | 12.4   | 0.7                                                                               | -      | 20.6       | 14.9                                                                              | 10.4  | -      | -                                                                                 |      |                                                                                     |      |      |
| HCM Lane LOS             | B      | A                                                                                 | -      | C          | B                                                                                 | B     | -      | -                                                                                 |      |                                                                                     |      |      |
| HCM 95th %tile Q(veh)    | 0.7    | -                                                                                 | -      | 2.5        | 0.1                                                                               | 0     | -      | -                                                                                 |      |                                                                                     |      |      |

# Timings

## 1: Yale Blvd & Gibson Blvd

08/05/2021

|                      |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                       |                                                                                      |  |  |                                                                                      |
|----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     |
| Lane Configurations  |  |    |  |  |    |  |   |   |  |  |   |
| Traffic Volume (vph) | 286                                                                               | 1722                                                                                                                                                                                                                                                  | 208                                                                               | 212                                                                               | 778                                                                                                                                                                                                                                                   | 60                                                                                | 105                                                                                                                                                                     | 170                                                                                                                                                                     | 227                                                                                 | 106                                                                                 | 137                                                                                                                                                                     |
| Future Volume (vph)  | 286                                                                               | 1722                                                                                                                                                                                                                                                  | 208                                                                               | 212                                                                               | 778                                                                                                                                                                                                                                                   | 60                                                                                | 105                                                                                                                                                                     | 170                                                                                                                                                                     | 227                                                                                 | 106                                                                                 | 137                                                                                                                                                                     |
| Turn Type            | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                                                                                                                   | NA                                                                                                                                                                      | Perm                                                                                | pm+pt                                                                               | NA                                                                                                                                                                      |
| Protected Phases     | 5                                                                                 | 2                                                                                                                                                                                                                                                     |                                                                                   | 1                                                                                 | 6                                                                                                                                                                                                                                                     |                                                                                   | 7                                                                                                                                                                       | 4                                                                                                                                                                       |                                                                                     | 3                                                                                   | 8                                                                                                                                                                       |
| Permitted Phases     | 2                                                                                 |                                                                                                                                                                                                                                                       | 2                                                                                 | 6                                                                                 |                                                                                                                                                                                                                                                       | 6                                                                                 | 4                                                                                                                                                                       |                                                                                                                                                                         | 4                                                                                   | 8                                                                                   |                                                                                                                                                                         |
| Detector Phase       | 5                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 1                                                                                 | 6                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 4                                                                                                                                                                       | 4                                                                                   | 3                                                                                   | 8                                                                                                                                                                       |
| Switch Phase         |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                                                                                                                     | 16.0                                                                                                                                                                    | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                                                                                                    |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                                                                                                                    | 25.0                                                                                                                                                                    | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                                                                                                    |
| Total Split (s)      | 30.0                                                                              | 29.2                                                                                                                                                                                                                                                  | 29.2                                                                              | 30.4                                                                              | 29.6                                                                                                                                                                                                                                                  | 29.6                                                                              | 30.4                                                                                                                                                                    | 30.0                                                                                                                                                                    | 30.0                                                                                | 30.4                                                                                | 30.0                                                                                                                                                                    |
| Total Split (%)      | 25.0%                                                                             | 24.3%                                                                                                                                                                                                                                                 | 24.3%                                                                             | 25.3%                                                                             | 24.7%                                                                                                                                                                                                                                                 | 24.7%                                                                             | 25.3%                                                                                                                                                                   | 25.0%                                                                                                                                                                   | 25.0%                                                                               | 25.3%                                                                               | 25.0%                                                                                                                                                                   |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                                                                                                                     | 4.0                                                                                                                                                                     | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                                                                                                     |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                                                                                                                     | 3.0                                                                                                                                                                     | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                                                                                                     |
| 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)  | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                                                                                                     |
| Lead/Lag             | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                                                                                                                    | Lag                                                                                                                                                                     | Lag                                                                                 | Lead                                                                                | Lag                                                                                                                                                                     |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                                                                                                                     | Yes                                                                                                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                                                                                                     |
| Recall Mode          | Max                                                                               | C-Max                                                                                                                                                                                                                                                 | C-Max                                                                             | None                                                                              | C-Max                                                                                                                                                                                                                                                 | C-Max                                                                             | None                                                                                                                                                                    | None                                                                                                                                                                    | None                                                                                | None                                                                                | None                                                                                                                                                                    |
| Act Effct Green (s)  | 76.5                                                                              | 53.3                                                                                                                                                                                                                                                  | 53.3                                                                              | 41.2                                                                              | 22.6                                                                                                                                                                                                                                                  | 22.6                                                                              | 26.9                                                                                                                                                                    | 16.0                                                                                                                                                                    | 16.0                                                                                | 33.0                                                                                | 19.2                                                                                                                                                                    |
| Actuated g/C Ratio   | 0.64                                                                              | 0.44                                                                                                                                                                                                                                                  | 0.44                                                                              | 0.34                                                                              | 0.19                                                                                                                                                                                                                                                  | 0.19                                                                              | 0.22                                                                                                                                                                    | 0.13                                                                                                                                                                    | 0.13                                                                                | 0.28                                                                                | 0.16                                                                                                                                                                    |
| v/c Ratio            | 0.41                                                                              | 0.83                                                                                                                                                                                                                                                  | 0.29                                                                              | 0.75                                                                              | 0.88                                                                                                                                                                                                                                                  | 0.17                                                                              | 0.21                                                                                                                                                                    | 0.39                                                                                                                                                                    | 0.58                                                                                | 0.33                                                                                | 0.48                                                                                                                                                                    |
| Control Delay        | 15.2                                                                              | 34.5                                                                                                                                                                                                                                                  | 11.6                                                                              | 45.5                                                                              | 59.4                                                                                                                                                                                                                                                  | 1.4                                                                               | 32.0                                                                                                                                                                    | 50.3                                                                                                                                                                    | 11.8                                                                                | 34.6                                                                                | 23.3                                                                                                                                                                    |
| 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          | 15.2                                                                              | 34.5                                                                                                                                                                                                                                                  | 11.6                                                                              | 45.5                                                                              | 59.4                                                                                                                                                                                                                                                  | 1.4                                                                               | 32.0                                                                                                                                                                    | 50.3                                                                                                                                                                    | 11.8                                                                                | 34.6                                                                                | 23.3                                                                                                                                                                    |
| LOS                  | B                                                                                 | C                                                                                                                                                                                                                                                     | B                                                                                 | D                                                                                 | E                                                                                                                                                                                                                                                     | A                                                                                 | C                                                                                                                                                                       | D                                                                                                                                                                       | B                                                                                   | C                                                                                   | C                                                                                                                                                                       |
| Approach Delay       |                                                                                   | 29.9                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 53.3                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 29.1                                                                                                                                                                    |                                                                                     |                                                                                     | 26.3                                                                                                                                                                    |
| Approach LOS         |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | D                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | C                                                                                                                                                                       |                                                                                     |                                                                                     | C                                                                                                                                                                       |

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 35.3

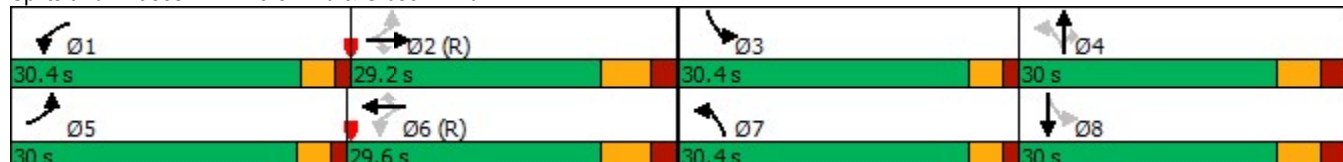
Intersection LOS: D

Intersection Capacity Utilization 83.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



## Queues

## 1: Yale Blvd &amp; Gibson Blvd

08/05/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 311  | 1872 | 226  | 230  | 846  | 65   | 114  | 185  | 247  | 115  | 319  |
| v/c Ratio               | 0.41 | 0.83 | 0.29 | 0.75 | 0.88 | 0.17 | 0.21 | 0.39 | 0.58 | 0.33 | 0.48 |
| Control Delay           | 15.2 | 34.5 | 11.6 | 45.5 | 59.4 | 1.4  | 32.0 | 50.3 | 11.8 | 34.6 | 23.3 |
| 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             | 15.2 | 34.5 | 11.6 | 45.5 | 59.4 | 1.4  | 32.0 | 50.3 | 11.8 | 34.6 | 23.3 |
| Queue Length 50th (ft)  | 107  | 457  | 44   | 107  | 235  | 0    | 33   | 70   | 0    | 68   | 54   |
| Queue Length 95th (ft)  | 200  | #672 | 116  | 176  | #305 | 4    | 54   | 107  | 77   | 112  | 97   |
| Internal Link Dist (ft) |      | 278  |      |      | 518  |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |      | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 759  | 2260 | 775  | 451  | 957  | 393  | 883  | 678  | 503  | 453  | 761  |
| 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       | 0.41 | 0.83 | 0.29 | 0.51 | 0.88 | 0.17 | 0.13 | 0.27 | 0.49 | 0.25 | 0.42 |

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

08/05/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |   |                                                                                      |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                                | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |   |  |
| Traffic Volume (veh/h)       | 286                                                                               | 1722                                                                                                                                                                                                                                                  | 208                                                                               | 212                                                                               | 778                                                                                                                                                                                                                                                   | 60                                                                                 | 105                                                                                                                                                                     | 170                                                                                                                                                                     | 227                                                                                 | 106                                                                                 | 137                                                                                                                                                                     | 156                                                                                 |
| Future Volume (veh/h)        | 286                                                                               | 1722                                                                                                                                                                                                                                                  | 208                                                                               | 212                                                                               | 778                                                                                                                                                                                                                                                   | 60                                                                                 | 105                                                                                                                                                                     | 170                                                                                                                                                                     | 227                                                                                 | 106                                                                                 | 137                                                                                                                                                                     | 156                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                  | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                               | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                    |                                                                                                                                                                         | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                               | 1870                                                                                                                                                                    | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                    | 1870                                                                                |
| Adj Flow Rate, veh/h         | 311                                                                               | 1872                                                                                                                                                                                                                                                  | 226                                                                               | 230                                                                               | 846                                                                                                                                                                                                                                                   | 65                                                                                 | 114                                                                                                                                                                     | 185                                                                                                                                                                     | 247                                                                                 | 115                                                                                 | 149                                                                                                                                                                     | 170                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                               | 0.92                                                                                                                                                                    | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                  | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                       | 2                                                                                   |
| Cap, veh/h                   | 575                                                                               | 2360                                                                                                                                                                                                                                                  | 733                                                                               | 271                                                                               | 1795                                                                                                                                                                                                                                                  | 557                                                                                | 488                                                                                                                                                                     | 617                                                                                                                                                                     | 275                                                                                 | 308                                                                                 | 353                                                                                                                                                                     | 314                                                                                 |
| Arrive On Green              | 0.21                                                                              | 0.46                                                                                                                                                                                                                                                  | 0.46                                                                              | 0.10                                                                              | 0.35                                                                                                                                                                                                                                                  | 0.35                                                                               | 0.05                                                                                                                                                                    | 0.17                                                                                                                                                                    | 0.17                                                                                | 0.07                                                                                | 0.20                                                                                                                                                                    | 0.20                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                               | 3456                                                                                                                                                                    | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Grp Volume(v), veh/h         | 311                                                                               | 1872                                                                                                                                                                                                                                                  | 226                                                                               | 230                                                                               | 846                                                                                                                                                                                                                                                   | 65                                                                                 | 114                                                                                                                                                                     | 185                                                                                                                                                                     | 247                                                                                 | 115                                                                                 | 149                                                                                                                                                                     | 170                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                               | 1728                                                                                                                                                                    | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1585                                                                                |
| Q Serve(g_s), s              | 10.6                                                                              | 37.4                                                                                                                                                                                                                                                  | 10.7                                                                              | 9.7                                                                               | 15.5                                                                                                                                                                                                                                                  | 3.3                                                                                | 3.2                                                                                                                                                                     | 5.4                                                                                                                                                                     | 18.3                                                                                | 6.2                                                                                 | 8.8                                                                                                                                                                     | 11.6                                                                                |
| Cycle Q Clear(g_c), s        | 10.6                                                                              | 37.4                                                                                                                                                                                                                                                  | 10.7                                                                              | 9.7                                                                               | 15.5                                                                                                                                                                                                                                                  | 3.3                                                                                | 3.2                                                                                                                                                                     | 5.4                                                                                                                                                                     | 18.3                                                                                | 6.2                                                                                 | 8.8                                                                                                                                                                     | 11.6                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                               | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 575                                                                               | 2360                                                                                                                                                                                                                                                  | 733                                                                               | 271                                                                               | 1795                                                                                                                                                                                                                                                  | 557                                                                                | 488                                                                                                                                                                     | 617                                                                                                                                                                     | 275                                                                                 | 308                                                                                 | 353                                                                                                                                                                     | 314                                                                                 |
| V/C Ratio(X)                 | 0.54                                                                              | 0.79                                                                                                                                                                                                                                                  | 0.31                                                                              | 0.85                                                                              | 0.47                                                                                                                                                                                                                                                  | 0.12                                                                               | 0.23                                                                                                                                                                    | 0.30                                                                                                                                                                    | 0.90                                                                                | 0.37                                                                                | 0.42                                                                                                                                                                    | 0.54                                                                                |
| Avail Cap(c_a), veh/h        | 575                                                                               | 2360                                                                                                                                                                                                                                                  | 733                                                                               | 474                                                                               | 1795                                                                                                                                                                                                                                                  | 557                                                                                | 1076                                                                                                                                                                    | 681                                                                                                                                                                     | 304                                                                                 | 567                                                                                 | 353                                                                                                                                                                     | 314                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 15.4                                                                              | 27.4                                                                                                                                                                                                                                                  | 20.2                                                                              | 26.8                                                                              | 30.2                                                                                                                                                                                                                                                  | 26.3                                                                               | 38.1                                                                                                                                                                    | 43.2                                                                                                                                                                    | 48.5                                                                                | 36.4                                                                                | 42.1                                                                                                                                                                    | 43.2                                                                                |
| Incr Delay (d2), s/veh       | 3.6                                                                               | 2.8                                                                                                                                                                                                                                                   | 1.1                                                                               | 7.3                                                                               | 0.9                                                                                                                                                                                                                                                   | 0.4                                                                                | 0.2                                                                                                                                                                     | 0.3                                                                                                                                                                     | 25.9                                                                                | 0.7                                                                                 | 0.8                                                                                                                                                                     | 1.9                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                                | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 4.5                                                                               | 14.8                                                                                                                                                                                                                                                  | 4.1                                                                               | 4.4                                                                               | 6.3                                                                                                                                                                                                                                                   | 1.3                                                                                | 1.4                                                                                                                                                                     | 2.4                                                                                                                                                                     | 9.1                                                                                 | 2.7                                                                                 | 3.9                                                                                                                                                                     | 4.6                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d),s/veh         | 19.0                                                                              | 30.2                                                                                                                                                                                                                                                  | 21.3                                                                              | 34.1                                                                              | 31.1                                                                                                                                                                                                                                                  | 26.7                                                                               | 38.4                                                                                                                                                                    | 43.5                                                                                                                                                                    | 74.4                                                                                | 37.2                                                                                | 42.9                                                                                                                                                                    | 45.1                                                                                |
| LnGrp LOS                    | B                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                 | C                                                                                 | C                                                                                                                                                                                                                                                     | C                                                                                  | D                                                                                                                                                                       | D                                                                                                                                                                       | E                                                                                   | D                                                                                   | D                                                                                                                                                                       | D                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 2409                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 1141                                                                                                                                                                                                                                                  |                                                                                    |                                                                                                                                                                         | 546                                                                                                                                                                     |                                                                                     |                                                                                     | 434                                                                                                                                                                     |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 28.0                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 31.5                                                                                                                                                                                                                                                  |                                                                                    |                                                                                                                                                                         | 56.4                                                                                                                                                                    |                                                                                     |                                                                                     | 42.2                                                                                                                                                                    |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                    |                                                                                                                                                                         | E                                                                                                                                                                       |                                                                                     |                                                                                     | D                                                                                                                                                                       |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                  | 7                                                                                                                                                                       | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 16.7                                                                              | 62.5                                                                                                                                                                                                                                                  | 13.0                                                                              | 27.8                                                                              | 30.0                                                                                                                                                                                                                                                  | 49.2                                                                               | 10.0                                                                                                                                                                    | 30.8                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                                | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 25.9                                                                              | 22.2                                                                                                                                                                                                                                                  | 25.9                                                                              | 23.0                                                                              | 25.5                                                                                                                                                                                                                                                  | 22.6                                                                               | 25.9                                                                                                                                                                    | 23.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 11.7                                                                              | 39.4                                                                                                                                                                                                                                                  | 8.2                                                                               | 20.3                                                                              | 12.6                                                                                                                                                                                                                                                  | 17.5                                                                               | 5.2                                                                                                                                                                     | 13.6                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.5                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.5                                                                               | 0.7                                                                                                                                                                                                                                                   | 2.4                                                                                | 0.3                                                                                                                                                                     | 1.2                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       | 33.6                                                                              |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       | C                                                                                 |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

08/05/2021

Intersection

Int Delay, s/veh 10.6

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 2201 | 90   | 93   | 1037 | 0    | 62   |
| Future Vol, veh/h        | 2201 | 90   | 93   | 1037 | 0    | 62   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 2392 | 98   | 101  | 1127 | 0    | 67   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 2490   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 5.34   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.12   | -      |
| Pot Cap-1 Maneuver   | -      | ~ 70   | 0      |
| Stage 1              | -      | -      | 0      |
| Stage 2              | -      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | ~ 70   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 30 | 45.9 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 153   | -   | -   | ~ 70  | -   |
| HCM Lane V/C Ratio    | 0.44  | -   | -   | 1.444 | -   |
| HCM Control Delay (s) | 45.9  | -   | -   | 364.7 | -   |
| HCM Lane LOS          | E     | -   | -   | F     | -   |
| HCM 95th %tile Q(veh) | 2     | -   | -   | 8.4   | -   |

Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection

Int Delay, s/veh 6.1

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 8    | 17                                                                                | 55                                                                                | 54   | 176                                                                               | 7                                                                                 |
| Future Vol, veh/h        | 8    | 17                                                                                | 55                                                                                | 54   | 176                                                                               | 7                                                                                 |
| 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                                                                                 | 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                | 9    | 18                                                                                | 60                                                                                | 59   | 191                                                                               | 8                                                                                 |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 119    | 0      | 0 126 90      |
| Stage 1              | -      | -      | - 90 -        |
| Stage 2              | -      | -      | - 36 -        |
| 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   | 1469   | -      | - 869 968     |
| Stage 1              | -      | -      | - 934 -       |
| Stage 2              | -      | -      | - 986 -       |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1469   | -      | - 864 968     |
| Mov Cap-2 Maneuver   | -      | -      | - 864 -       |
| Stage 1              | -      | -      | - 928 -       |
| Stage 2              | -      | -      | - 986 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 2.4 | 0  | 10.2 |
| HCM LOS              |     |    | B    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 1469  | -   | -   | -   | 864   | 968   |
| HCM Lane V/C Ratio    | 0.006 | -   | -   | -   | 0.221 | 0.008 |
| HCM Control Delay (s) | 7.5   | 0   | -   | -   | 10.3  | 8.7   |
| HCM Lane LOS          | A     | A   | -   | -   | B     | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.8   | 0     |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

08/05/2021

| Intersection             |        |      |        |       |        |       |        |      |      |      |      |      |
|--------------------------|--------|------|--------|-------|--------|-------|--------|------|------|------|------|------|
| Int Delay, s/veh         | 3.4    |      |        |       |        |       |        |      |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL   | WBT    | WBR   | NBL    | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    | ↗      |       | ↕      |       | ↗      | ↕↕↕  |      | ↗    | ↕↕↕  |      |
| Traffic Vol, veh/h       | 35     | 0    | 151    | 2     | 0      | 7     | 112    | 458  | 1    | 8    | 457  | 91   |
| Future Vol, veh/h        | 35     | 0    | 151    | 2     | 0      | 7     | 112    | 458  | 1    | 8    | 457  | 91   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0     | 0      | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop | Stop   | Stop  | Stop   | Stop  | Free   | Free | Free | Free | Free | Free |
| RT Channelized           | -      | -    | None   | -     | -      | None  | -      | -    | None | -    | -    | None |
| Storage Length           | -      | -    | 100    | -     | -      | -     | 200    | -    | -    | 60   | -    | -    |
| Veh in Median Storage, # | -      | 0    | -      | -     | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Grade, %                 | -      | 0    | -      | -     | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92    | 92     | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2     | 2      | 2     | 2      | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 38     | 0    | 164    | 2     | 0      | 8     | 122    | 498  | 1    | 9    | 497  | 99   |
|                          |        |      |        |       |        |       |        |      |      |      |      |      |
| Major/Minor              | Minor2 |      | Minor1 |       | Major1 |       | Major2 |      |      |      |      |      |
| Conflicting Flow All     | 1008   | 1308 | 298    | 960   | 1357   | 250   | 596    | 0    | 0    | 499  | 0    | 0    |
| Stage 1                  | 565    | 565  | -      | 743   | 743    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 443    | 743  | -      | 217   | 614    | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy            | 6.44   | 6.54 | 7.14   | 6.44  | 6.54   | 7.14  | 5.34   | -    | -    | 5.34 | -    | -    |
| Critical Hdwy Stg 1      | 7.34   | 5.54 | -      | 7.34  | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.74   | 5.54 | -      | 6.74  | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Follow-up Hdwy           | 3.82   | 4.02 | 3.92   | 3.82  | 4.02   | 3.92  | 3.12   | -    | -    | 3.12 | -    | -    |
| Pot Cap-1 Maneuver       | 253    | 158  | 596    | 270   | 148    | 639   | 610    | -    | -    | 678  | -    | -    |
| Stage 1                  | 396    | 506  | -      | 299   | 420    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 515    | 420  | -      | 703   | 481    | -     | -      | -    | -    | -    | -    | -    |
| Platoon blocked, %       |        |      |        |       |        |       |        | -    | -    |      | -    | -    |
| Mov Cap-1 Maneuver       | 209    | 125  | 596    | 164   | 117    | 639   | 610    | -    | -    | 678  | -    | -    |
| Mov Cap-2 Maneuver       | 209    | 125  | -      | 164   | 117    | -     | -      | -    | -    | -    | -    | -    |
| Stage 1                  | 317    | 499  | -      | 239   | 336    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 407    | 336  | -      | 503   | 475    | -     | -      | -    | -    | -    | -    | -    |
|                          |        |      |        |       |        |       |        |      |      |      |      |      |
|                          |        |      |        |       |        |       |        |      |      |      |      |      |
| Approach                 | EB     |      | WB     |       | NB     |       | SB     |      |      |      |      |      |
| HCM Control Delay, s     | 15.7   |      | 14.5   |       | 2.4    |       | 0.1    |      |      |      |      |      |
| HCM LOS                  | C      |      | B      |       |        |       |        |      |      |      |      |      |
|                          |        |      |        |       |        |       |        |      |      |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | NBR    | EBLn1 | EBLn2  | WBLn1 | SBL    | SBT  | SBR  |      |      |      |
| Capacity (veh/h)         | 610    | -    | -      | 209   | 596    | 389   | 678    | -    | -    |      |      |      |
| HCM Lane V/C Ratio       | 0.2    | -    | -      | 0.182 | 0.275  | 0.025 | 0.013  | -    | -    |      |      |      |
| HCM Control Delay (s)    | 12.4   | -    | -      | 26    | 13.3   | 14.5  | 10.4   | -    | -    |      |      |      |
| HCM Lane LOS             | B      | -    | -      | D     | B      | B     | B      | -    | -    |      |      |      |
| HCM 95th %tile Q(veh)    | 0.7    | -    | -      | 0.6   | 1.1    | 0.1   | 0      | -    | -    |      |      |      |

Intersection

Int Delay, s/veh 2.5

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 17   | 132                                                                               | 132                                                                               | 71   | 56                                                                                | 33   |
| Future Vol, veh/h        | 17   | 132                                                                               | 132                                                                               | 71   | 56                                                                                | 33   |
| 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                | 18   | 143                                                                               | 143                                                                               | 77   | 61                                                                                | 36   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 220   | 0 | - | 0 | 361   | 182   |
| Stage 1              | -     | - | - | - | 182   | -     |
| Stage 2              | -     | - | - | - | 179   | -     |
| 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   | 1349  | - | - | - | 638   | 861   |
| Stage 1              | -     | - | - | - | 849   | -     |
| Stage 2              | -     | - | - | - | 852   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1349  | - | - | - | 629   | 861   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 629   | -     |
| Stage 1              | -     | - | - | - | 837   | -     |
| Stage 2              | -     | - | - | - | 852   | -     |

Approach EB WB SB

|                      |     |   |    |
|----------------------|-----|---|----|
| HCM Control Delay, s | 0.9 | 0 | 11 |
| HCM LOS              |     |   | B  |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1349  | - | - | - | 699   |
| HCM Lane V/C Ratio    | 0.014 | - | - | - | 0.138 |
| HCM Control Delay (s) | 7.7   | 0 | - | - | 11    |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0     | - | - | - | 0.5   |

Intersection

Int Delay, s/veh 3.7

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 34   | 77                                                                                | 92                                                                                | 71   | 72                                                                                | 33   |
| Future Vol, veh/h        | 34   | 77                                                                                | 92                                                                                | 71   | 72                                                                                | 33   |
| 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                | 37   | 84                                                                                | 100                                                                               | 77   | 78                                                                                | 36   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 177   | 0 | - | 0 | 297   | 139   |
| Stage 1              | -     | - | - | - | 139   | -     |
| Stage 2              | -     | - | - | - | 158   | -     |
| 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   | 1399  | - | - | - | 694   | 909   |
| Stage 1              | -     | - | - | - | 888   | -     |
| Stage 2              | -     | - | - | - | 871   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1399  | - | - | - | 675   | 909   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 675   | -     |
| Stage 1              | -     | - | - | - | 863   | -     |
| Stage 2              | -     | - | - | - | 871   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 2.3 | 0 | 10.8 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1399  | - | - | - | 734   |
| HCM Lane V/C Ratio    | 0.026 | - | - | - | 0.155 |
| HCM Control Delay (s) | 7.6   | 0 | - | - | 10.8  |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0.1   | - | - | - | 0.5   |

Intersection

Int Delay, s/veh 3

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 34   | 158                                                                               | 76                                                                                | 54   | 56                                                                                | 33   |
| Future Vol, veh/h        | 34   | 158                                                                               | 76                                                                                | 54   | 56                                                                                | 33   |
| 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                | 37   | 172                                                                               | 83                                                                                | 59   | 61                                                                                | 36   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 142   | 0 | - | 0 | 359   | 113   |
| Stage 1              | -     | - | - | - | 113   | -     |
| Stage 2              | -     | - | - | - | 246   | -     |
| 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   | 1441  | - | - | - | 640   | 940   |
| Stage 1              | -     | - | - | - | 912   | -     |
| Stage 2              | -     | - | - | - | 795   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1441  | - | - | - | 622   | 940   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 622   | -     |
| Stage 1              | -     | - | - | - | 886   | -     |
| Stage 2              | -     | - | - | - | 795   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 1.3 | 0 | 10.9 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1441  | - | - | - | 711   |
| HCM Lane V/C Ratio    | 0.026 | - | - | - | 0.136 |
| HCM Control Delay (s) | 7.6   | 0 | - | - | 10.9  |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0.1   | - | - | - | 0.5   |

Intersection

Int Delay, s/veh 4

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  |      |      | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 2124 | 139  | 0    | 1130 | 0    | 123  |
| Future Vol, veh/h        | 2124 | 139  | 0    | 1130 | 0    | 123  |
| 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                | 2309 | 151  | 0    | 1228 | 0    | 134  |

| Major/Minor          | Major1 | Major2 | Minor1     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0      | 0      | - - - 1230 |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |
| Critical Hdwy        | -      | -      | - - - 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - - -      |
| Critical Hdwy Stg 2  | -      | -      | - - -      |
| Follow-up Hdwy       | -      | -      | - - - 3.92 |
| Pot Cap-1 Maneuver   | -      | -      | 0 - 0 145  |
| Stage 1              | -      | -      | 0 - 0 -    |
| Stage 2              | -      | -      | 0 - 0 -    |
| Platoon blocked, %   | -      | -      | -          |
| Mov Cap-1 Maneuver   | -      | -      | - - - 145  |
| Mov Cap-2 Maneuver   | -      | -      | - - -      |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 115.3 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 145   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.922 | -   | -   | -   |
| HCM Control Delay (s) | 115.3 | -   | -   | -   |
| HCM Lane LOS          | F     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 6.4   | -   | -   | -   |

Intersection

Int Delay, s/veh 3.8

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  |      |      | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 2110 | 122  | 0    | 1129 | 0    | 123  |
| Future Vol, veh/h        | 2110 | 122  | 0    | 1129 | 0    | 123  |
| 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                | 2293 | 133  | 0    | 1227 | 0    | 134  |

| Major/Minor          | Major1 | Major2 | Minor1     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0      | 0      | - - - 1213 |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |
| Critical Hdwy        | -      | -      | - - - 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - - -      |
| Critical Hdwy Stg 2  | -      | -      | - - -      |
| Follow-up Hdwy       | -      | -      | - - - 3.92 |
| Pot Cap-1 Maneuver   | -      | -      | 0 - 0 149  |
| Stage 1              | -      | -      | 0 - 0      |
| Stage 2              | -      | -      | 0 - 0      |
| Platoon blocked, %   | -      | -      | -          |
| Mov Cap-1 Maneuver   | -      | -      | - - - 149  |
| Mov Cap-2 Maneuver   | -      | -      | - - -      |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 107.5 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 149   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.897 | -   | -   | -   |
| HCM Control Delay (s) | 107.5 | -   | -   | -   |
| HCM Lane LOS          | F     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 6.2   | -   | -   | -   |

---

**4: Walker Rd & Gibson Blvd Performance by movement**


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| Movement           | EBT  | EBR  | WBL  | WBT | NBR  | All |
|--------------------|------|------|------|-----|------|-----|
| Denied Del/Veh (s) | 0.0  | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 |
| Total Del/Veh (s)  | 12.9 | 13.0 | 28.2 | 1.8 | 21.5 | 9.7 |

---

**10: NW Access & Gibson Blvd Performance by movement**


---

| Movement           | EBT | EBR | WBT | NBR  | All |
|--------------------|-----|-----|-----|------|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0 | 2.4  | 0.1 |
| Total Del/Veh (s)  | 1.3 | 1.9 | 0.3 | 25.0 | 2.0 |

---

**11: NE Site Access & Gibson Blvd Performance by movement**


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| Movement           | EBT | EBR | WBT | NBR  | All |
|--------------------|-----|-----|-----|------|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0 | 3.0  | 0.1 |
| Total Del/Veh (s)  | 0.8 | 1.2 | 0.2 | 35.2 | 2.0 |

---

**Total Zone Performance**


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|                    |        |
|--------------------|--------|
| Denied Del/Veh (s) | 2.6    |
| Total Del/Veh (s)  | 1275.4 |

## Intersection: 4: Walker Rd & Gibson Blvd

| Movement              | EB   | EB   | EB  | WB  | NB  |
|-----------------------|------|------|-----|-----|-----|
| Directions Served     | T    | T    | R   | L   | R   |
| Maximum Queue (ft)    | 989  | 980  | 20  | 156 | 105 |
| Average Queue (ft)    | 55   | 35   | 1   | 48  | 28  |
| 95th Queue (ft)       | 390  | 335  | 7   | 103 | 65  |
| Link Distance (ft)    | 1072 | 1072 |     |     | 218 |
| Upstream Blk Time (%) |      |      |     |     |     |
| Queuing Penalty (veh) |      |      |     |     |     |
| Storage Bay Dist (ft) |      |      | 125 | 175 |     |
| Storage Blk Time (%)  |      |      |     | 0   |     |
| Queuing Penalty (veh) |      |      |     | 0   |     |

## Intersection: 10: NW Access & Gibson Blvd

| Movement              | NB  |
|-----------------------|-----|
| Directions Served     | R   |
| Maximum Queue (ft)    | 96  |
| Average Queue (ft)    | 69  |
| 95th Queue (ft)       | 110 |
| Link Distance (ft)    | 81  |
| Upstream Blk Time (%) | 8   |
| Queuing Penalty (veh) | 0   |
| Storage Bay Dist (ft) |     |
| Storage Blk Time (%)  |     |
| Queuing Penalty (veh) |     |

## Intersection: 11: NE Site Access & Gibson Blvd

| Movement              | EB | EB | WB  | NB  |
|-----------------------|----|----|-----|-----|
| Directions Served     | T  | TR | T   | R   |
| Maximum Queue (ft)    | 97 | 99 | 51  | 114 |
| Average Queue (ft)    | 9  | 17 | 2   | 78  |
| 95th Queue (ft)       | 47 | 73 | 17  | 129 |
| Link Distance (ft)    | 97 | 97 | 104 | 99  |
| Upstream Blk Time (%) | 0  | 0  |     | 13  |
| Queuing Penalty (veh) | 3  | 3  |     | 0   |
| Storage Bay Dist (ft) |    |    |     |     |
| Storage Blk Time (%)  |    |    |     |     |
| Queuing Penalty (veh) |    |    |     |     |

## Zone Summary

Zone wide Queuing Penalty: 6

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

08/06/2021

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 9.8  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      | ↕↕↕  |      |      | ↕↕↕  |      |      |
| Traffic Vol, veh/h       | 26   | 2    | 140  | 7    | 1    | 16   | 95   | 675  | 3    | 33   | 910  | 71   |
| Future Vol, veh/h        | 26   | 2    | 140  | 7    | 1    | 16   | 95   | 675  | 3    | 33   | 910  | 71   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 28   | 2    | 152  | 8    | 1    | 17   | 103  | 734  | 3    | 36   | 989  | 77   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1600   | 2043 | 533    | 1411 | 2080   | 369  | 1066   | 0 | 0 | 737  | 0 | 0 |
| Stage 1              | 1100   | 1100 | -      | 942  | 942    | -    | -      | - | - | -    | - | - |
| Stage 2              | 500    | 943  | -      | 469  | 1138   | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.44   | 6.54 | 7.14   | 6.44 | 6.54   | 7.14 | 5.34   | - | - | 5.34 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 7.34 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.74   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.82   | 4.02 | 3.92   | 3.82 | 4.02   | 3.92 | 3.12   | - | - | 3.12 | - | - |
| Pot Cap-1 Maneuver   | 112    | 56   | 421    | 146  | 53     | 536  | 364    | - | - | 523  | - | - |
| Stage 1              | 170    | 286  | -      | 218  | 340    | -    | -      | - | - | -    | - | - |
| Stage 2              | 476    | 339  | -      | 497  | 275    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 62     | 27   | 421    | 52   | 26     | 536  | 364    | - | - | 523  | - | - |
| Mov Cap-2 Maneuver   | 62     | 27   | -      | 52   | 26     | -    | -      | - | - | -    | - | - |
| Stage 1              | 89     | 266  | -      | 114  | 177    | -    | -      | - | - | -    | - | - |
| Stage 2              | 238    | 177  | -      | 293  | 256    | -    | -      | - | - | -    | - | - |

| Approach             | EB   |  | WB |  | NB  |  | SB  |  |
|----------------------|------|--|----|--|-----|--|-----|--|
| HCM Control Delay, s | 87.8 |  | 44 |  | 4.1 |  | 0.4 |  |
| HCM LOS              | F    |  | E  |  |     |  |     |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 364   | -   | -   | 203        | 118   | 523   | -   |
| HCM Lane V/C Ratio    | 0.284 | -   | -   | 0.9        | 0.221 | 0.069 | -   |
| HCM Control Delay (s) | 18.8  | 2.1 | -   | 87.8       | 44    | 12.4  | -   |
| HCM Lane LOS          | C     | A   | -   | F          | E     | B     | -   |
| HCM 95th %tile Q(veh) | 1.1   | -   | -   | 7.1        | 0.8   | 0.2   | -   |

# Timings

## 1: Yale Blvd & Gibson Blvd

08/05/2021

|                      |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                       |                                                                                      |  |  |                                                                                      |
|----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group           | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     |
| Lane Configurations  |  |    |  |  |    |  |   |   |  |  |   |
| Traffic Volume (vph) | 255                                                                               | 839                                                                                                                                                                                                                                                   | 302                                                                               | 393                                                                               | 2136                                                                                                                                                                                                                                                  | 128                                                                               | 251                                                                                                                                                                     | 198                                                                                                                                                                     | 269                                                                                 | 101                                                                                 | 323                                                                                                                                                                     |
| Future Volume (vph)  | 255                                                                               | 839                                                                                                                                                                                                                                                   | 302                                                                               | 393                                                                               | 2136                                                                                                                                                                                                                                                  | 128                                                                               | 251                                                                                                                                                                     | 198                                                                                                                                                                     | 269                                                                                 | 101                                                                                 | 323                                                                                                                                                                     |
| Turn Type            | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                             | NA                                                                                                                                                                                                                                                    | Perm                                                                              | pm+pt                                                                                                                                                                   | NA                                                                                                                                                                      | Perm                                                                                | pm+pt                                                                               | NA                                                                                                                                                                      |
| Protected Phases     | 5                                                                                 | 2                                                                                                                                                                                                                                                     |                                                                                   | 1                                                                                 | 6                                                                                                                                                                                                                                                     |                                                                                   | 7                                                                                                                                                                       | 4                                                                                                                                                                       |                                                                                     | 3                                                                                   | 8                                                                                                                                                                       |
| Permitted Phases     | 2                                                                                 |                                                                                                                                                                                                                                                       | 2                                                                                 | 6                                                                                 |                                                                                                                                                                                                                                                       | 6                                                                                 | 4                                                                                                                                                                       |                                                                                                                                                                         | 4                                                                                   | 8                                                                                   |                                                                                                                                                                         |
| Detector Phase       | 5                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 1                                                                                 | 6                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 4                                                                                                                                                                       | 4                                                                                   | 3                                                                                   | 8                                                                                                                                                                       |
| Switch Phase         |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |
| Minimum Initial (s)  | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                               | 16.0                                                                                                                                                                                                                                                  | 16.0                                                                              | 3.0                                                                                                                                                                     | 16.0                                                                                                                                                                    | 16.0                                                                                | 3.0                                                                                 | 16.0                                                                                                                                                                    |
| Minimum Split (s)    | 25.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                              | 25.0                                                                                                                                                                                                                                                  | 25.0                                                                              | 24.5                                                                                                                                                                    | 25.0                                                                                                                                                                    | 25.0                                                                                | 24.5                                                                                | 25.0                                                                                                                                                                    |
| Total Split (s)      | 33.0                                                                              | 32.0                                                                                                                                                                                                                                                  | 32.0                                                                              | 32.5                                                                              | 31.5                                                                                                                                                                                                                                                  | 31.5                                                                              | 32.5                                                                                                                                                                    | 33.0                                                                                                                                                                    | 33.0                                                                                | 32.5                                                                                | 33.0                                                                                                                                                                    |
| Total Split (%)      | 25.4%                                                                             | 24.6%                                                                                                                                                                                                                                                 | 24.6%                                                                             | 25.0%                                                                             | 24.2%                                                                                                                                                                                                                                                 | 24.2%                                                                             | 25.0%                                                                                                                                                                   | 25.4%                                                                                                                                                                   | 25.4%                                                                               | 25.0%                                                                               | 25.4%                                                                                                                                                                   |
| Yellow Time (s)      | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 4.5                                                                               | 3.0                                                                                                                                                                     | 4.0                                                                                                                                                                     | 4.0                                                                                 | 3.0                                                                                 | 4.0                                                                                                                                                                     |
| All-Red Time (s)     | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                               | 2.5                                                                                                                                                                                                                                                   | 2.5                                                                               | 1.5                                                                                                                                                                     | 3.0                                                                                                                                                                     | 3.0                                                                                 | 1.5                                                                                 | 3.0                                                                                                                                                                     |
| 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)  | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     | 7.0                                                                                 | 4.5                                                                                 | 7.0                                                                                                                                                                     |
| Lead/Lag             | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                              | Lag                                                                                                                                                                                                                                                   | Lag                                                                               | Lead                                                                                                                                                                    | Lag                                                                                                                                                                     | Lag                                                                                 | Lead                                                                                | Lag                                                                                                                                                                     |
| Lead-Lag Optimize?   | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                                                                                                                                                                                   | Yes                                                                               | Yes                                                                                                                                                                     | Yes                                                                                                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                                                                                                     |
| Recall Mode          | Max                                                                               | C-Max                                                                                                                                                                                                                                                 | C-Max                                                                             | None                                                                              | Max                                                                                                                                                                                                                                                   | Max                                                                               | None                                                                                                                                                                    | None                                                                                                                                                                    | None                                                                                | None                                                                                | None                                                                                                                                                                    |
| Act Effct Green (s)  | 74.6                                                                              | 35.8                                                                                                                                                                                                                                                  | 35.8                                                                              | 59.7                                                                              | 24.5                                                                                                                                                                                                                                                  | 24.5                                                                              | 43.6                                                                                                                                                                    | 27.4                                                                                                                                                                    | 27.4                                                                                | 38.3                                                                                | 24.7                                                                                                                                                                    |
| Actuated g/C Ratio   | 0.57                                                                              | 0.28                                                                                                                                                                                                                                                  | 0.28                                                                              | 0.46                                                                              | 0.19                                                                                                                                                                                                                                                  | 0.19                                                                              | 0.34                                                                                                                                                                    | 0.21                                                                                                                                                                    | 0.21                                                                                | 0.29                                                                                | 0.19                                                                                                                                                                    |
| v/c Ratio            | 0.42                                                                              | 0.65                                                                                                                                                                                                                                                  | 0.49                                                                              | 0.78                                                                              | 2.42                                                                                                                                                                                                                                                  | 0.36                                                                              | 0.55                                                                                                                                                                    | 0.29                                                                                                                                                                    | 0.52                                                                                | 0.28                                                                                | 0.81                                                                                                                                                                    |
| Control Delay        | 21.5                                                                              | 45.9                                                                                                                                                                                                                                                  | 7.3                                                                               | 36.4                                                                              | 667.4                                                                                                                                                                                                                                                 | 15.9                                                                              | 33.1                                                                                                                                                                    | 43.1                                                                                                                                                                    | 7.7                                                                                 | 29.6                                                                                | 50.3                                                                                                                                                                    |
| 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          | 21.5                                                                              | 45.9                                                                                                                                                                                                                                                  | 7.3                                                                               | 36.4                                                                              | 667.4                                                                                                                                                                                                                                                 | 15.9                                                                              | 33.1                                                                                                                                                                    | 43.1                                                                                                                                                                    | 7.7                                                                                 | 29.6                                                                                | 50.3                                                                                                                                                                    |
| LOS                  | C                                                                                 | D                                                                                                                                                                                                                                                     | A                                                                                 | D                                                                                 | F                                                                                                                                                                                                                                                     | B                                                                                 | C                                                                                                                                                                       | D                                                                                                                                                                       | A                                                                                   | C                                                                                   | D                                                                                                                                                                       |
| Approach Delay       |                                                                                   | 33.1                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 542.7                                                                                                                                                                                                                                                 |                                                                                   |                                                                                                                                                                         | 26.3                                                                                                                                                                    |                                                                                     |                                                                                     | 47.0                                                                                                                                                                    |
| Approach LOS         |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | F                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | C                                                                                                                                                                       |                                                                                     |                                                                                     | D                                                                                                                                                                       |

### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.42

Intersection Signal Delay: 284.6

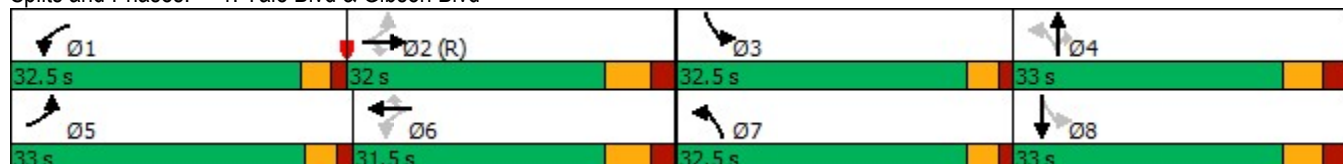
Intersection LOS: F

Intersection Capacity Utilization 97.2%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: Yale Blvd & Gibson Blvd



## Queues

## 1: Yale Blvd &amp; Gibson Blvd

08/05/2021



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 277  | 912  | 328  | 427  | 2322  | 139  | 273  | 215  | 292  | 110  | 574  |
| v/c Ratio               | 0.42 | 0.65 | 0.49 | 0.78 | 2.42  | 0.36 | 0.55 | 0.29 | 0.52 | 0.28 | 0.81 |
| Control Delay           | 21.5 | 45.9 | 7.3  | 36.4 | 667.4 | 15.9 | 33.1 | 43.1 | 7.7  | 29.6 | 50.3 |
| 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             | 21.5 | 45.9 | 7.3  | 36.4 | 667.4 | 15.9 | 33.1 | 43.1 | 7.7  | 29.6 | 50.3 |
| Queue Length 50th (ft)  | 116  | 255  | 0    | 224  | ~1181 | 21   | 82   | 80   | 0    | 64   | 205  |
| Queue Length 95th (ft)  | 240  | #363 | 85   | 363  | #1273 | 81   | 102  | 110  | 70   | 96   | 256  |
| Internal Link Dist (ft) |      | 278  |      |      | 518   |      |      | 306  |      |      | 381  |
| Turn Bay Length (ft)    |      |      | 240  | 400  |       | 200  | 160  |      |      | 200  |      |
| Base Capacity (vph)     | 660  | 1401 | 673  | 550  | 958   | 386  | 820  | 785  | 578  | 535  | 781  |
| 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       | 0.42 | 0.65 | 0.49 | 0.78 | 2.42  | 0.36 | 0.33 | 0.27 | 0.51 | 0.21 | 0.73 |

## Intersection Summary

~ 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.

# HCM 6th Signalized Intersection Summary

## 1: Yale Blvd & Gibson Blvd

08/05/2021

|                              |  |                                                                                                                                                                      |  |  |                                                                                                                                                                      |  |                                                                                       |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                                                                                                   | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                                                                                                   | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |    |  |  |    |  |   |   |  |  |   |  |
| Traffic Volume (veh/h)       | 255                                                                               | 839                                                                                                                                                                                                                                                   | 302                                                                               | 393                                                                               | 2136                                                                                                                                                                                                                                                  | 128                                                                               | 251                                                                                                                                                                     | 198                                                                                                                                                                     | 269                                                                                 | 101                                                                                 | 323                                                                                                                                                                     | 205                                                                                 |
| Future Volume (veh/h)        | 255                                                                               | 839                                                                                                                                                                                                                                                   | 302                                                                               | 393                                                                               | 2136                                                                                                                                                                                                                                                  | 128                                                                               | 251                                                                                                                                                                     | 198                                                                                                                                                                     | 269                                                                                 | 101                                                                                 | 323                                                                                                                                                                     | 205                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                                                                                                       | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | No                                                                                                                                                                                                                                                    |                                                                                   |                                                                                                                                                                         | No                                                                                                                                                                      |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                                                                                                  | 1870                                                                              | 1870                                                                                                                                                                    | 1870                                                                                                                                                                    | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                    | 1870                                                                                |
| Adj Flow Rate, veh/h         | 277                                                                               | 912                                                                                                                                                                                                                                                   | 328                                                                               | 427                                                                               | 2322                                                                                                                                                                                                                                                  | 139                                                                               | 273                                                                                                                                                                     | 215                                                                                                                                                                     | 292                                                                                 | 110                                                                                 | 351                                                                                                                                                                     | 223                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                                                                                                                    | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                                                                                                     | 2                                                                                 | 2                                                                                                                                                                       | 2                                                                                                                                                                       | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                       | 2                                                                                   |
| Cap, veh/h                   | 446                                                                               | 1914                                                                                                                                                                                                                                                  | 594                                                                               | 476                                                                               | 1694                                                                                                                                                                                                                                                  | 526                                                                               | 437                                                                                                                                                                     | 732                                                                                                                                                                     | 326                                                                                 | 312                                                                                 | 395                                                                                                                                                                     | 246                                                                                 |
| Arrive On Green              | 0.22                                                                              | 0.37                                                                                                                                                                                                                                                  | 0.37                                                                              | 0.18                                                                              | 0.33                                                                                                                                                                                                                                                  | 0.33                                                                              | 0.08                                                                                                                                                                    | 0.21                                                                                                                                                                    | 0.21                                                                                | 0.07                                                                                | 0.19                                                                                                                                                                    | 0.19                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 5106                                                                                                                                                                                                                                                  | 1585                                                                              | 3456                                                                                                                                                                    | 3554                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 2101                                                                                                                                                                    | 1311                                                                                |
| Grp Volume(v), veh/h         | 277                                                                               | 912                                                                                                                                                                                                                                                   | 328                                                                               | 427                                                                               | 2322                                                                                                                                                                                                                                                  | 139                                                                               | 273                                                                                                                                                                     | 215                                                                                                                                                                     | 292                                                                                 | 110                                                                                 | 296                                                                                                                                                                     | 278                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1781                                                                              | 1702                                                                                                                                                                                                                                                  | 1585                                                                              | 1728                                                                                                                                                                    | 1777                                                                                                                                                                    | 1585                                                                                | 1781                                                                                | 1777                                                                                                                                                                    | 1634                                                                                |
| Q Serve(g_s), s              | 13.9                                                                              | 17.7                                                                                                                                                                                                                                                  | 21.2                                                                              | 20.2                                                                              | 43.1                                                                                                                                                                                                                                                  | 8.4                                                                               | 8.1                                                                                                                                                                     | 6.6                                                                                                                                                                     | 23.3                                                                                | 6.4                                                                                 | 21.1                                                                                                                                                                    | 21.6                                                                                |
| Cycle Q Clear(g_c), s        | 13.9                                                                              | 17.7                                                                                                                                                                                                                                                  | 21.2                                                                              | 20.2                                                                              | 43.1                                                                                                                                                                                                                                                  | 8.4                                                                               | 8.1                                                                                                                                                                     | 6.6                                                                                                                                                                     | 23.3                                                                                | 6.4                                                                                 | 21.1                                                                                                                                                                    | 21.6                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                                                                                                       | 1.00                                                                              | 1.00                                                                                                                                                                    |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 0.80                                                                                |
| Lane Grp Cap(c), veh/h       | 446                                                                               | 1914                                                                                                                                                                                                                                                  | 594                                                                               | 476                                                                               | 1694                                                                                                                                                                                                                                                  | 526                                                                               | 437                                                                                                                                                                     | 732                                                                                                                                                                     | 326                                                                                 | 312                                                                                 | 334                                                                                                                                                                     | 307                                                                                 |
| V/C Ratio(X)                 | 0.62                                                                              | 0.48                                                                                                                                                                                                                                                  | 0.55                                                                              | 0.90                                                                              | 1.37                                                                                                                                                                                                                                                  | 0.26                                                                              | 0.63                                                                                                                                                                    | 0.29                                                                                                                                                                    | 0.89                                                                                | 0.35                                                                                | 0.89                                                                                                                                                                    | 0.91                                                                                |
| Avail Cap(c_a), veh/h        | 446                                                                               | 1914                                                                                                                                                                                                                                                  | 594                                                                               | 546                                                                               | 1694                                                                                                                                                                                                                                                  | 526                                                                               | 890                                                                                                                                                                     | 732                                                                                                                                                                     | 326                                                                                 | 577                                                                                 | 355                                                                                                                                                                     | 327                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                                                                                                  | 1.00                                                                              | 1.00                                                                                                                                                                    | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 32.4                                                                              | 30.9                                                                                                                                                                                                                                                  | 32.0                                                                              | 24.0                                                                              | 43.4                                                                                                                                                                                                                                                  | 31.8                                                                              | 39.5                                                                                                                                                                    | 43.6                                                                                                                                                                    | 50.2                                                                                | 38.6                                                                                | 51.4                                                                                                                                                                    | 51.6                                                                                |
| Incr Delay (d2), s/veh       | 6.4                                                                               | 0.9                                                                                                                                                                                                                                                   | 3.7                                                                               | 16.0                                                                              | 170.8                                                                                                                                                                                                                                                 | 1.2                                                                               | 1.5                                                                                                                                                                     | 0.2                                                                                                                                                                     | 25.5                                                                                | 0.7                                                                                 | 21.7                                                                                                                                                                    | 26.4                                                                                |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 8.5                                                                               | 7.2                                                                                                                                                                                                                                                   | 8.6                                                                               | 10.1                                                                              | 44.1                                                                                                                                                                                                                                                  | 3.3                                                                               | 3.5                                                                                                                                                                     | 2.9                                                                                                                                                                     | 11.4                                                                                | 2.8                                                                                 | 11.2                                                                                                                                                                    | 11.0                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d),s/veh         | 38.8                                                                              | 31.8                                                                                                                                                                                                                                                  | 35.7                                                                              | 40.0                                                                              | 214.2                                                                                                                                                                                                                                                 | 33.0                                                                              | 41.0                                                                                                                                                                    | 43.9                                                                                                                                                                    | 75.7                                                                                | 39.3                                                                                | 73.1                                                                                                                                                                    | 78.1                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                                                                                                                                                                                     | D                                                                                 | D                                                                                 | F                                                                                                                                                                                                                                                     | C                                                                                 | D                                                                                                                                                                       | D                                                                                                                                                                       | E                                                                                   | D                                                                                   | E                                                                                                                                                                       | E                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 1517                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 2888                                                                                                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 780                                                                                                                                                                     |                                                                                     |                                                                                     | 684                                                                                                                                                                     |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 33.9                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | 179.8                                                                                                                                                                                                                                                 |                                                                                   |                                                                                                                                                                         | 54.8                                                                                                                                                                    |                                                                                     |                                                                                     | 69.7                                                                                                                                                                    |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | F                                                                                                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         | D                                                                                                                                                                       |                                                                                     |                                                                                     | E                                                                                                                                                                       |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                                                                                                     | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                                                                                                     | 6                                                                                 | 7                                                                                                                                                                       | 8                                                                                                                                                                       |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 27.4                                                                              | 55.7                                                                                                                                                                                                                                                  | 13.1                                                                              | 33.8                                                                              | 33.0                                                                                                                                                                                                                                                  | 50.1                                                                              | 15.4                                                                                                                                                                    | 31.4                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 7.0                                                                                                                                                                                                                                                   | 4.5                                                                               | 7.0                                                                               | 4.5                                                                                                                                                                                                                                                   | 7.0                                                                               | 4.5                                                                                                                                                                     | 7.0                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 28.0                                                                              | 25.0                                                                                                                                                                                                                                                  | 28.0                                                                              | 26.0                                                                              | 28.5                                                                                                                                                                                                                                                  | 24.5                                                                              | 28.0                                                                                                                                                                    | 26.0                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 22.2                                                                              | 23.2                                                                                                                                                                                                                                                  | 8.4                                                                               | 25.3                                                                              | 15.9                                                                                                                                                                                                                                                  | 45.1                                                                              | 10.1                                                                                                                                                                    | 23.6                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.7                                                                               | 1.2                                                                                                                                                                                                                                                   | 0.2                                                                               | 0.2                                                                               | 0.6                                                                                                                                                                                                                                                   | 0.0                                                                               | 0.8                                                                                                                                                                     | 0.8                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 112.6                                                                             |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | F                                                                                 |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

HCM 6th TWSC  
4: Walker Rd & Gibson Blvd

08/05/2021

Intersection

Int Delay, s/veh 1

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  | ↑    | ↑    | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1418 | 46   | 79   | 2585 | 0    | 62   |
| Future Vol, veh/h        | 1418 | 46   | 79   | 2585 | 0    | 62   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 125  | 175  | -    | -    | 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                | 1541 | 50   | 86   | 2810 | 0    | 67   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1591   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 5.34   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.12   | -      |
| Pot Cap-1 Maneuver   | -      | 201    | 0      |
| Stage 1              | -      | -      | 0      |
| Stage 2              | -      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 201    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 1.1 | 20.8 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 294   | -   | -   | 201   | -   |
| HCM Lane V/C Ratio    | 0.229 | -   | -   | 0.427 | -   |
| HCM Control Delay (s) | 20.8  | -   | -   | 35.6  | -   |
| HCM Lane LOS          | C     | -   | -   | E     | -   |
| HCM 95th %tile Q(veh) | 0.9   | -   | -   | 2     | -   |

Intersection

Int Delay, s/veh 4.7

| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 19   | 24                                                                                | 86                                                                                | 43   | 103                                                                               | 22                                                                                |
| Future Vol, veh/h        | 19   | 24                                                                                | 86                                                                                | 43   | 103                                                                               | 22                                                                                |
| 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                                                                                 | 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   | 26                                                                                | 93                                                                                | 47   | 112                                                                               | 24                                                                                |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 140    | 0      | 0 185 117     |
| Stage 1              | -      | -      | - 117 -       |
| Stage 2              | -      | -      | - 68 -        |
| 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   | 1443   | -      | - 804 935     |
| Stage 1              | -      | -      | - 908 -       |
| Stage 2              | -      | -      | - 955 -       |
| Platoon blocked, %   | -      | -      | -             |
| Mov Cap-1 Maneuver   | 1443   | -      | - 792 935     |
| Mov Cap-2 Maneuver   | -      | -      | - 792 -       |
| Stage 1              | -      | -      | - 894 -       |
| Stage 2              | -      | -      | - 955 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 3.3 | 0  | 10.1 |
| HCM LOS              |     |    | B    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 1443  | -   | -   | -   | 792   | 935   |
| HCM Lane V/C Ratio    | 0.014 | -   | -   | -   | 0.141 | 0.026 |
| HCM Control Delay (s) | 7.5   | 0   | -   | -   | 10.3  | 9     |
| HCM Lane LOS          | A     | A   | -   | -   | B     | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.5   | 0.1   |

HCM 6th TWSC  
6: Yale Blvd & Miles Rd

08/05/2021

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 4    |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↰    | ↱    |      | ↰    | ↱    | ↰    | ↰    | ↱    | ↰    | ↰    | ↱    |
| Traffic Vol, veh/h       | 26   | 2    | 140  | 7    | 1    | 16   | 95   | 675  | 3    | 33   | 910  | 71   |
| Future Vol, veh/h        | 26   | 2    | 140  | 7    | 1    | 16   | 95   | 675  | 3    | 33   | 910  | 71   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | 100  | -    | -    | -    | 200  | -    | -    | 60   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 28   | 2    | 152  | 8    | 1    | 17   | 103  | 734  | 3    | 36   | 989  | 77   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1600   | 2043 | 533    | 1411 | 2080   | 369  | 1066   | 0 | 0 | 737  | 0 | 0 |
| Stage 1              | 1100   | 1100 | -      | 942  | 942    | -    | -      | - | - | -    | - | - |
| Stage 2              | 500    | 943  | -      | 469  | 1138   | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 6.44   | 6.54 | 7.14   | 6.44 | 6.54   | 7.14 | 5.34   | - | - | 5.34 | - | - |
| Critical Hdwy Stg 1  | 7.34   | 5.54 | -      | 7.34 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.74   | 5.54 | -      | 6.74 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.82   | 4.02 | 3.92   | 3.82 | 4.02   | 3.92 | 3.12   | - | - | 3.12 | - | - |
| Pot Cap-1 Maneuver   | 112    | 56   | 421    | 146  | 53     | 536  | 364    | - | - | 523  | - | - |
| Stage 1              | 170    | 286  | -      | 218  | 340    | -    | -      | - | - | -    | - | - |
| Stage 2              | 476    | 339  | -      | 497  | 275    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 79     | 37   | 421    | 66   | 35     | 536  | 364    | - | - | 523  | - | - |
| Mov Cap-2 Maneuver   | 79     | 37   | -      | 66   | 35     | -    | -      | - | - | -    | - | - |
| Stage 1              | 122    | 266  | -      | 156  | 244    | -    | -      | - | - | -    | - | - |
| Stage 2              | 329    | 243  | -      | 293  | 256    | -    | -      | - | - | -    | - | - |

| Approach             | EB   |  | WB   |  | NB  |  | SB  |  |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 29.6 |  | 34.9 |  | 2.3 |  | 0.4 |  |
| HCM LOS              | D    |  | D    |  |     |  |     |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 364   | -   | -   | 73    | 421   | 146   | 523   | -   | -   |
| HCM Lane V/C Ratio    | 0.284 | -   | -   | 0.417 | 0.361 | 0.179 | 0.069 | -   | -   |
| HCM Control Delay (s) | 18.8  | -   | -   | 85.8  | 18.3  | 34.9  | 12.4  | -   | -   |
| HCM Lane LOS          | C     | -   | -   | F     | C     | D     | B     | -   | -   |
| HCM 95th %tile Q(veh) | 1.1   | -   | -   | 1.6   | 1.6   | 0.6   | 0.2   | -   | -   |

Intersection

Int Delay, s/veh 2.2

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 13   | 123                                                                               | 112                                                                               | 56   | 46                                                                                | 23   |
| Future Vol, veh/h        | 13   | 123                                                                               | 112                                                                               | 56   | 46                                                                                | 23   |
| 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                | 14   | 134                                                                               | 122                                                                               | 61   | 50                                                                                | 25   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 183   | 0 | - | 0 | 315   | 153   |
| Stage 1              | -     | - | - | - | 153   | -     |
| Stage 2              | -     | - | - | - | 162   | -     |
| 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   | 1392  | - | - | - | 678   | 893   |
| Stage 1              | -     | - | - | - | 875   | -     |
| Stage 2              | -     | - | - | - | 867   | -     |
| Platoon blocked, %   | -     | - | - | - | -     | -     |
| Mov Cap-1 Maneuver   | 1392  | - | - | - | 671   | 893   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 671   | -     |
| Stage 1              | -     | - | - | - | 865   | -     |
| Stage 2              | -     | - | - | - | 867   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 0.7 | 0 | 10.5 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |      |   |   |   |       |
|-----------------------|------|---|---|---|-------|
| Capacity (veh/h)      | 1392 | - | - | - | 732   |
| HCM Lane V/C Ratio    | 0.01 | - | - | - | 0.102 |
| HCM Control Delay (s) | 7.6  | 0 | - | - | 10.5  |
| HCM Lane LOS          | A    | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0    | - | - | - | 0.3   |

Intersection

Int Delay, s/veh 3.3

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 25   | 76                                                                                | 77                                                                                | 56   | 58                                                                                | 23   |
| Future Vol, veh/h        | 25   | 76                                                                                | 77                                                                                | 56   | 58                                                                                | 23   |
| 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                | 27   | 83                                                                                | 84                                                                                | 61   | 63                                                                                | 25   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 145   | 0 | - | 0 | 252   | 115   |
| Stage 1              | -     | - | - | - | 115   | -     |
| Stage 2              | -     | - | - | - | 137   | -     |
| 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   | 1437  | - | - | - | 737   | 937   |
| Stage 1              | -     | - | - | - | 910   | -     |
| Stage 2              | -     | - | - | - | 890   | -     |
| Platoon blocked, %   | -     | - | - | - | -     | -     |
| Mov Cap-1 Maneuver   | 1437  | - | - | - | 722   | 937   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 722   | -     |
| Stage 1              | -     | - | - | - | 892   | -     |
| Stage 2              | -     | - | - | - | 890   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 1.9 | 0 | 10.3 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1437  | - | - | - | 772   |
| HCM Lane V/C Ratio    | 0.019 | - | - | - | 0.114 |
| HCM Control Delay (s) | 7.6   | 0 | - | - | 10.3  |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0.1   | - | - | - | 0.4   |

Intersection

Int Delay, s/veh 2.6

Movement EBL EBT WBT WBR SBL SBR

|                          |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 25   | 102                                                                               | 107                                                                               | 43   | 46                                                                                | 23   |
| Future Vol, veh/h        | 25   | 102                                                                               | 107                                                                               | 43   | 46                                                                                | 23   |
| 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                | 27   | 111                                                                               | 116                                                                               | 47   | 50                                                                                | 25   |

Major/Minor Major1 Major2 Minor2

|                      |       |   |   |   |       |       |
|----------------------|-------|---|---|---|-------|-------|
| Conflicting Flow All | 163   | 0 | - | 0 | 305   | 140   |
| Stage 1              | -     | - | - | - | 140   | -     |
| Stage 2              | -     | - | - | - | 165   | -     |
| 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   | 1416  | - | - | - | 687   | 908   |
| Stage 1              | -     | - | - | - | 887   | -     |
| Stage 2              | -     | - | - | - | 864   | -     |
| Platoon blocked, %   |       | - | - | - |       |       |
| Mov Cap-1 Maneuver   | 1416  | - | - | - | 673   | 908   |
| Mov Cap-2 Maneuver   | -     | - | - | - | 673   | -     |
| Stage 1              | -     | - | - | - | 869   | -     |
| Stage 2              | -     | - | - | - | 864   | -     |

Approach EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 1.5 | 0 | 10.4 |
| HCM LOS              |     |   | B    |

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

|                       |       |   |   |   |       |
|-----------------------|-------|---|---|---|-------|
| Capacity (veh/h)      | 1416  | - | - | - | 737   |
| HCM Lane V/C Ratio    | 0.019 | - | - | - | 0.102 |
| HCM Control Delay (s) | 7.6   | 0 | - | - | 10.4  |
| HCM Lane LOS          | A     | A | - | - | B     |
| HCM 95th %tile Q(veh) | 0.1   | - | - | - | 0.3   |

Intersection

Int Delay, s/veh 0.5

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  |      |      | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1369 | 114  | 0    | 2666 | 0    | 92   |
| Future Vol, veh/h        | 1369 | 114  | 0    | 2666 | 0    | 92   |
| 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                | 1488 | 124  | 0    | 2898 | 0    | 100  |

| Major/Minor          | Major1 | Major2 | Minor1     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0      | 0      | - - - 806  |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |
| Critical Hdwy        | -      | -      | - - - 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - - -      |
| Critical Hdwy Stg 2  | -      | -      | - - -      |
| Follow-up Hdwy       | -      | -      | - - - 3.92 |
| Pot Cap-1 Maneuver   | -      | -      | 0 - 0 279  |
| Stage 1              | -      | -      | 0 - 0 -    |
| Stage 2              | -      | -      | 0 - 0 -    |
| Platoon blocked, %   | -      | -      | -          |
| Mov Cap-1 Maneuver   | -      | -      | - - - 279  |
| Mov Cap-2 Maneuver   | -      | -      | - - -      |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 24.9 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 279   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.358 | -   | -   | -   |
| HCM Control Delay (s) | 24.9  | -   | -   | -   |
| HCM Lane LOS          | C     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 1.6   | -   | -   | -   |

Intersection

Int Delay, s/veh 0.5

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑↑  |      |      | ↑↑↑  |      | ↑    |
| Traffic Vol, veh/h       | 1328 | 102  | 0    | 2657 | 0    | 92   |
| Future Vol, veh/h        | 1328 | 102  | 0    | 2657 | 0    | 92   |
| 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                | 1443 | 111  | 0    | 2888 | 0    | 100  |

| Major/Minor          | Major1 | Major2 | Minor1     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0      | 0      | - - - 777  |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |
| Critical Hdwy        | -      | -      | - - - 7.14 |
| Critical Hdwy Stg 1  | -      | -      | - - -      |
| Critical Hdwy Stg 2  | -      | -      | - - -      |
| Follow-up Hdwy       | -      | -      | - - - 3.92 |
| Pot Cap-1 Maneuver   | -      | -      | 0 - 0 291  |
| Stage 1              | -      | -      | 0 - 0 -    |
| Stage 2              | -      | -      | 0 - 0 -    |
| Platoon blocked, %   | -      | -      | -          |
| Mov Cap-1 Maneuver   | -      | -      | - - - 291  |
| Mov Cap-2 Maneuver   | -      | -      | - - -      |
| Stage 1              | -      | -      | - - -      |
| Stage 2              | -      | -      | - - -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 23.7 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 291   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.344 | -   | -   | -   |
| HCM Control Delay (s) | 23.7  | -   | -   | -   |
| HCM Lane LOS          | C     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 1.5   | -   | -   | -   |

## 4: Walker Rd &amp; Gibson Blvd Performance by movement

| Movement           | EBT | EBR | WBL  | WBT | NBR | All |
|--------------------|-----|-----|------|-----|-----|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s)  | 6.1 | 6.6 | 13.3 | 2.0 | 9.4 | 4.3 |

## 10: NW Access &amp; Gibson Blvd Performance by movement

| Movement           | EBT | EBR | WBT | NBR | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| Total Del/Veh (s)  | 2.1 | 1.8 | 0.5 | 8.3 | 1.5 |

## 11: NE Site Access &amp; Gibson Blvd Performance by movement

| Movement           | EBT | EBR | WBT | NBR | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| Total Del/Veh (s)  | 0.9 | 0.2 | 0.6 | 9.7 | 1.0 |

## Total Zone Performance

| Denied Del/Veh (s) |  |  | 0.1   |  |  |
|--------------------|--|--|-------|--|--|
| Total Del/Veh (s)  |  |  | 478.8 |  |  |

## Intersection: 4: Walker Rd &amp; Gibson Blvd

| Movement              | WB  | NB  |
|-----------------------|-----|-----|
| Directions Served     | L   | R   |
| Maximum Queue (ft)    | 95  | 67  |
| Average Queue (ft)    | 28  | 27  |
| 95th Queue (ft)       | 70  | 49  |
| Link Distance (ft)    |     | 218 |
| Upstream Blk Time (%) |     |     |
| Queuing Penalty (veh) |     |     |
| Storage Bay Dist (ft) | 175 |     |
| Storage Blk Time (%)  |     |     |
| Queuing Penalty (veh) |     |     |

## Intersection: 10: NW Access &amp; Gibson Blvd

| Movement              | EB  | NB |
|-----------------------|-----|----|
| Directions Served     | TR  | R  |
| Maximum Queue (ft)    | 30  | 79 |
| Average Queue (ft)    | 1   | 40 |
| 95th Queue (ft)       | 10  | 69 |
| Link Distance (ft)    | 515 | 81 |
| Upstream Blk Time (%) |     | 0  |
| Queuing Penalty (veh) |     | 0  |
| Storage Bay Dist (ft) |     |    |
| Storage Blk Time (%)  |     |    |
| Queuing Penalty (veh) |     |    |

## Intersection: 11: NE Site Access &amp; Gibson Blvd

| Movement              | EB | NB |
|-----------------------|----|----|
| Directions Served     | TR | R  |
| Maximum Queue (ft)    | 28 | 91 |
| Average Queue (ft)    | 1  | 44 |
| 95th Queue (ft)       | 10 | 72 |
| Link Distance (ft)    | 97 | 99 |
| Upstream Blk Time (%) |    | 0  |
| Queuing Penalty (veh) |    | 0  |
| Storage Bay Dist (ft) |    |    |
| Storage Blk Time (%)  |    |    |
| Queuing Penalty (veh) |    |    |

## Zone Summary

Zone wide Queuing Penalty: 0