



## **Opus Transport Apartments**

(Albuquerque, New Mexico)

### **Traffic Impact Study**

August 2, 2024

FINAL



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**Opus Transport Apartment  
Flightway Ave. at University Blvd, in Albuquerque, NM  
Traffic Impact Study Update**

***Executive Summary***

The purpose of this Traffic Impact Study (TIS) is to evaluate the transportation conditions before and after implementation of the proposed Opus Transport Apartment Development, to determine the impact of the site development on the adjacent transportation system, and then recommend improvements where necessary. This TIS is prepared in accordance with the requirements set forth by the City of Albuquerque (COA).

**Project Scope**

The traffic impact study (TIS) scoping meeting was held on March 28, 2024. The attendees include Matthew Grush, P.E. (City of Albuquerque), Ronald R. Bohannon, P.E. (Tierra West LLC.), Terry Brown P.E. (Tierra West LLC.), Derek Bohannon (Tierra West LLC.), Jon Niski (Tierra West LLC.), Vinny Perea (Tierra West LLC.), and Jimeia Roberts (Tierra West LLC.). The City of Albuquerque scoping letter for the Opus Transport Apartment Development TIS is in Appendix 02.

**Proposed Site Location**

The proposed Opus Transport Apartment site will be located east of Transport St. north of Woodward Rd., south of Flightway Ave. and west of University Blvd. in the City of Albuquerque, New Mexico, shown on [Figure 1: Opus Transport Apartments Vicinity Map](#).

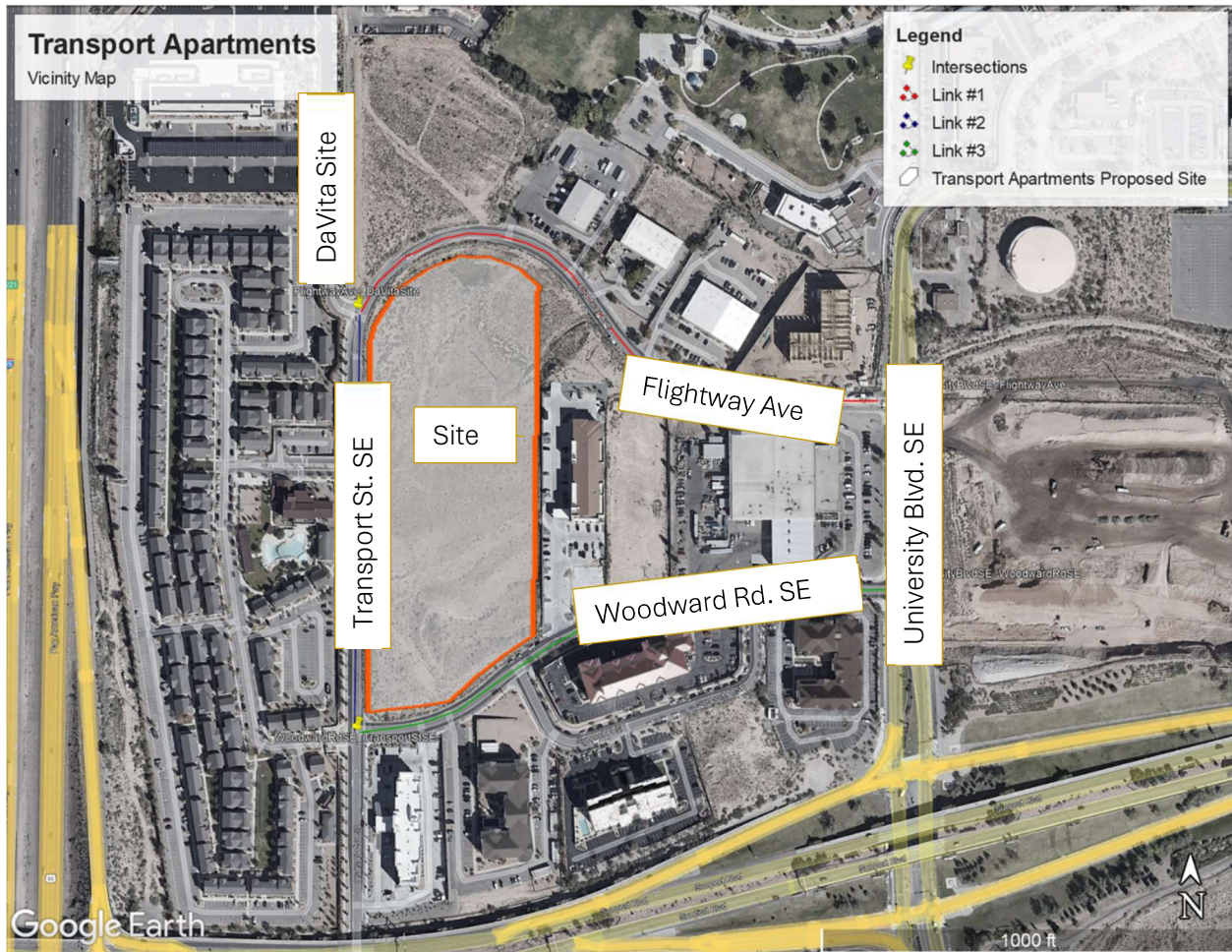


Figure 1: Opus Transport Apartments Vicinity Map

### Proposed Study Area

The study area includes the four intersections and two access points for the Transport Apartments Development shown on [Figure 2: Opus Transport Apartments Intersection Reference Map](#) and listed below:

1. Flightway Ave. at University Blvd. (Unsignalized)
2. Woodward Rd. at University Blvd. (Unsignalized)
3. Woodward Rd. at Transport St. (Unsignalized)
4. DaVita Access & Transport St. (Unsignalized)
5. Woodward Rd. & Driveway "A" (Unsignalized Proposed Driveway)
6. Flightway Ave. & Driveway "B" (Unsignalized Proposed Driveway)

# *Transport Apartments - Albuquerque, NM* (Flightway Ave / University Blvd) Intersection Reference Map

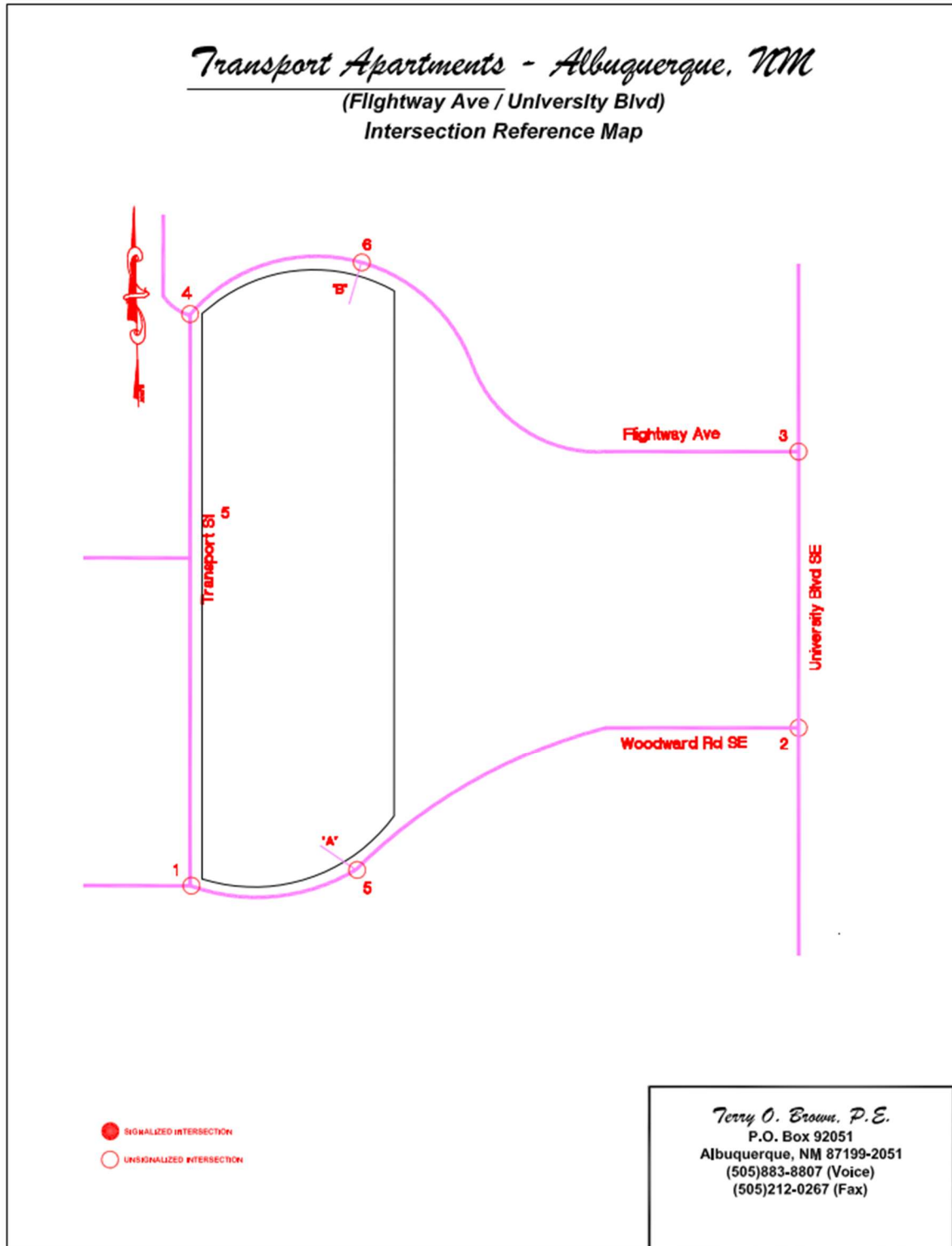


Figure 2: Opus Transport Apartments Intersection Reference Map (Tierra West LLC, 2024)



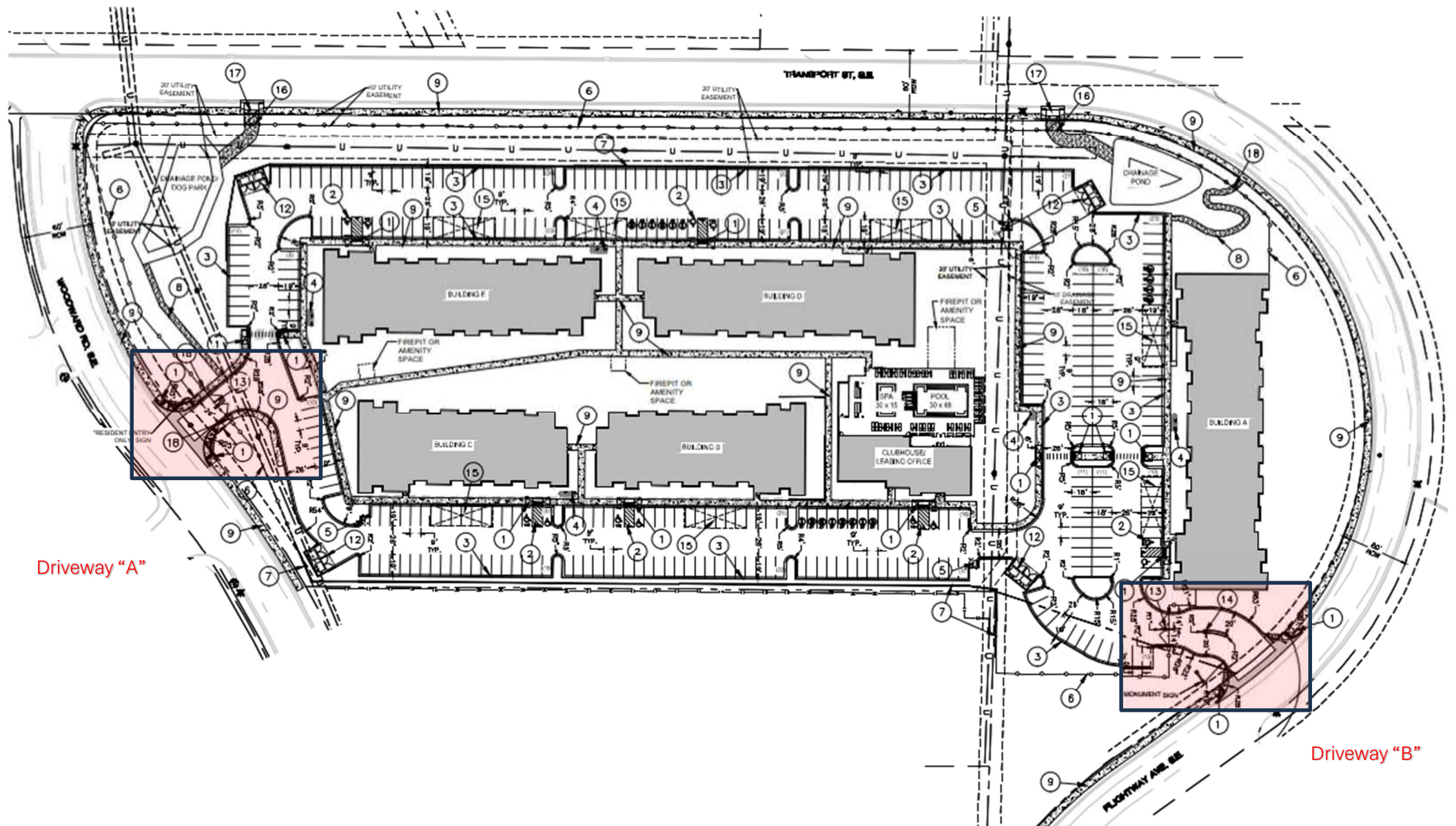
### **Proposed Site Description**

The approximately 9.3-acre Opus Transport Apartments is proposed to be fully developed for the Implementation Year of 2025 and evaluated for the Horizon Year of 2035. The site will generate residential trips.

The proposed site is to be developed with the following facilities:

- 164-units Multifamily Housing (Mid Rise)
- 90-units Multifamily Housing (Low Rise)
- 5,140 sq-ft. Single Tenant Office Building

The proposed site plan is shown on the next page and in Appendix 03.



Driveway "A"

Driveway "B"

## Analysis of Existing Conditions

### Crash Analysis

Crash data for the study area was collected for the years 2018, 2019, 2020, 2021, and 2022. The crash data was taken from the New Mexico Department of Transportation's (NMDOT) statewide database. The crash history data was collected for the intersections surrounding the Opus Transport Apartments. Based on the low number of crashes reported over the recent five-year period (35 crashes), this report finds that there are no significant safety issues in the study area. [Table 1: Opus Transport Apartments Crash Analysis Summary](#) below summarizes the crashes by year and by crash attributes:

*Table 1: Opus Transport Apartments Crash Analysis Summary*

**Crash Analysis Summary Table**  
**Transport Apartments**  
**(Flightway Ave /University Blvd)**

Crash Data from (IPRA) Internal Request

CRASH TYPE	Direction					PERCENTAGE DIRECTION	Year					SUBTOTAL	PERCENTAGE CRASH TYPE
	E	W	N	S	UNK		2018	2019	2020	2021	2022		
BACKING UP	1	0	0	0	0	3%	0	0	1	0	2	3	9%
FIXED OBJECT	1	0	1	3	1	18%	0	2	1	2	0	5	16%
LEFT-TURN ANGLE	0	1	0	0	0	3%	1	0	0	0	0	1	3%
PARKED VEHICLE	1	0	1	3	0	15%	2	0	2	0	0	4	13%
RIGHT-TURN-ANGLED	0	0	0	1	0	3%	1	2	0	0	0	3	9%
HEAD-ON COLLISION	1	2	0	1	1	15%	2	0	0	1	0	3	9%
REAR-END	0	0	1	0	0	3%	1	0	0	0	1	2	6%
SIDESWIPE LL	1	0	0	0	0	3%	0	0	1	0	1	2	6%
SIDESWIPE RL	3	0	2	1	0	18%	0	1	1	2	2	6	19%
T-BONE	0	2	0	1	0	9%	0	0	0	0	1	1	3%
OTHER	1	0	0	1	0	6%	1	0	0	1	1	3	9%
UNKNOWN	0	0	0	0	3	9%	0	2	0	0	0	2	6%
<b>SUBTOTAL</b>	<b>8</b>	<b>5</b>	<b>5</b>	<b>11</b>	<b>5</b>	<b>100%</b>	<b>8</b>	<b>7</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>35</b>	<b>100.00%</b>

Based on MUTCD warrant 7 criteria the number of crashes based on type did not exceed five or more within a 12-month period. There were no fatalities and majority of the crashes resulted in property damage based on [Table 2: Crash Analysis Attributes Summary Table](#). The summarized crash analysis tables are attached in Appendix 12.

Table 2: Crash Analysis Attributes Summary Table

**Crash Analysis Summary Table**  
**Transport Apartments**  
**Crash Data from IPRA**

CRASH TYPE	Year					SUBTOTAL	PERCENTAGE CRASH TYPE
	2018	2019	2020	2021	2022		
ALCOHOL INVOLVED	0	0	1	0	1	2	3.1%
CURVE	1	1	0	0	1	3	4.6%
DARK-LIGHTING	1	1	2	0	2	6	9.2%
DARK-NOT LIGHTING	0	1	0	0	1	2	3.1%
<b>FATALITY</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0%</b>
HEAVY TRUCK	1	1	0	0	0	2	3.1%
HILL CREST	1	0	0	0	1	2	3.1%
HIT-AND-RUN	1	3	3	2	2	11	16.9%
INJURY	3	0	2	1	2	8	12.3%
PROPERTY DAMAGE	5	7	4	5	6	27	41.5%
RAINING	1	0	0	0	0	1	1.5%
WORK ZONE	0	0	0	0	1	1	1.5%
<b>SUBTOTAL</b>	<b>14</b>	<b>14</b>	<b>12</b>	<b>8</b>	<b>17</b>	<b>65</b>	<b>100.0%</b>

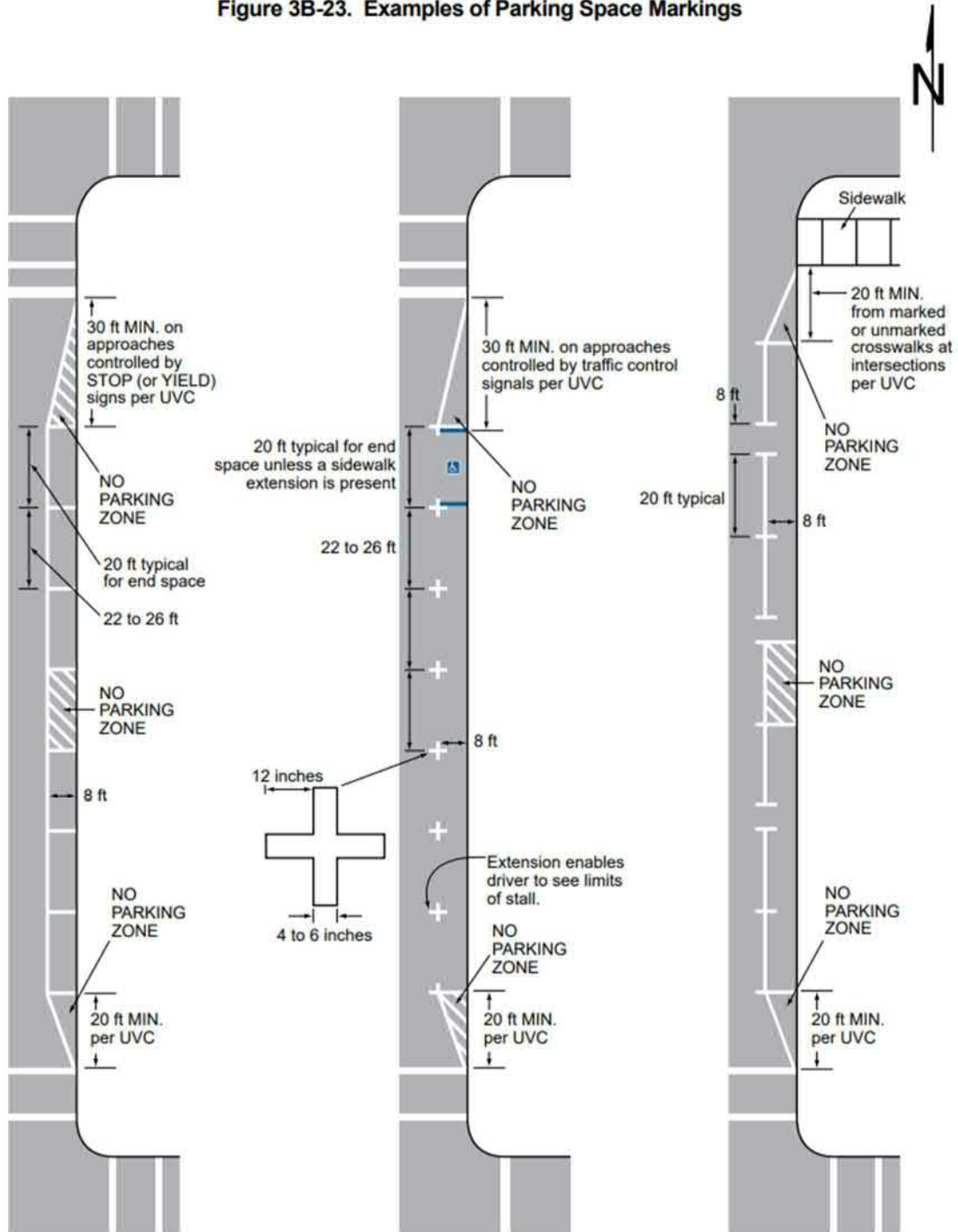
**Improvement to Existing Conditions**

Regulations are in place by the Federal Aviation Administration regarding the installation of reflective pavement markings, traffic signs, and roadway lighting in order to protect the safety of aircraft operators. The proposed site location has only a small portion of the property within the Airport Protection Overlay zone on the southeast corner of the parcel. The recommendation for striping is for areas within the zone must meet the United States Department of Transportation Federal Aviation Administration ‘Advisory Circular’ Chapter 5. Other Surface Markings Section 5.2 Vehicle Roadway Markings.

The recommendation is to continue on-street parking along Transport St. on the east and west sides, as well as recommended improvements to the existing on-street pavement marking. Improvements include the striping of the parking space to meet [Figure 3: MUTCD Section 3B-02 Warrants for Yellow Center Lines](#) standard applies the following:

*On-street parking space markings shall be white.*

Figure 3B-23. Examples of Parking Space Markings



Sect. 3B.27

December 2023

Figure 3: MUTCD Section 3B-02 Warrants for Yellow Center Lines



## Traffic Impact Analysis

### Trip Generation

The ITE Codes used for the proposed Opus Transport Apartments include the following: ITE Code 221 (Multifamily Housing (Mid-Rise)), ITE Code 220 (Multifamily Housing (Low-Rise)), and ITE Code 715 (Single Tenant Office Building). [Table 3: Opus Transport Apartments Trip Generations Data](#) summary is below and attached in Appendix 04.

*Table 3: Opus Transport Apartments Trip Generations Data (Tierra West LLC, 2024)*

### *Transport Apartments (2900 Transport St)* Trip Generation Data (ITE Trip Generation Manual - 11th Edition)

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.		
	DESCRIPTION	GROSS	ENTER	EXIT	ENTER	EXIT	
<b>Summary Sheet</b>							
		Units					
	Multifamily Housing (Mid-Rise)	164.00	745	14	47	39	25
	Multifamily Housing (Low-Rise)	90.00	607	9	27	37	22
	Single Tenant Office Building (715)	5.14	67	8	1	1	8
	<b>Subtotal</b>		<b>1,419</b>	<b>31</b>	<b>75</b>	<b>77</b>	<b>55</b>

### Intersection Analysis Summary

Background traffic volumes were calculated by applying historical annual background traffic growth rates to the existing traffic volumes for the implementation year. Existing traffic volumes were collected while school was in session during the month of April of the year 2024. The summarized traffic volumes are attached in Appendix 05. Turn movements for 2025 implementation year and 2035 horizon year can be found in Appendix 08 and Appendix 09, respectively.

The results of the Implementation Year (2025) and Horizon Year (2035) APH and PPH NO BUILD and BUILD conditions are summarized in [Table 4: Intersection LOS Analysis Summary Table](#). All intersections within the study area are performing at a LOS B or above.

Table 4: Intersection LOS Analysis Summary Table

**Intersection LOS Analysis Summary Table**  
**Transport Apartments**  
**(Flightway Ave /University Blvd)**

	Intersection Description	Intersection Operation	Case Evaluation	Implementation Year (2025) Conditions		Horizon Year (2035) Conditions	
				AM Peak LOS -Delay (s)	PM Peak LOS -Delay (s)	AM Peak LOS -Delay (s)	PM Peak LOS -Delay (s)
1	Flightway Ave. / University Blvd.	Unsignalized	No Build Build	A (1.3) A (1.8)	A (1.6) A (2.2)	A (1.4) A (1.8)	A (1.7) A (2.3)
2	Woodward Rd. / University Blvd.	Unsignalized	No Build Build Mitigated	A (3.1) A (4.0) A (3.0)	A (8.0) C (21.2) A (5.6)	A (3.4) A (4.5) A (3.1)	B (11.1) C (21.2) A (6.9)
3	Woodward Rd. / Transport St.	Unsignalized	No Build Build	A (7.1) A (7.2)	A (7.1) A (7.2)	A (7.1) A (7.2)	A (7.1) A (7.2)
5	Woodward Rd. / Driveway "A"	Unsignalized	Build Mitigated	A (1.8) A (1.8)	A (1.3) A (1.3)	A (1.8) A (1.8)	A (1.2) A (1.2)
6	Flightway Ave. / Driveway "B"	Unsignalized	Build Mitigated	A (2.1) A (2.1)	A (2.0) A (2.0)	A (1.8) A (2.0)	A (1.9) A (1.9)

The LOS at the unsignalized intersection of Woodward Rd. at University Blvd. during the 2025 PM Peak Hour period does not meet the minimum City of Albuquerque LOS E requirement. As a result, a Peak Hour Signal Warrant (Warrant 3) was performed for the intersection.

The guidelines in the Manual on Uniform Traffic Control Devices (MUTCD) for Warrant #3 are as follows:

*Section 4C.04 Warrant 3, Peak Hour*

*Support:*

*The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.*

*Standard:*

*This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.*

*The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:*

*A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:*

- 1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and*
- 2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and*
- 3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.*

*B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-*

*minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.*

*Option:*

*If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-4 may be used in place of Figure 4C-3 to evaluate the criteria in the second category of the Standard.*

*If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.*

The total stopped delay at the intersection of Woodward Rd. at University Blvd. during the implementation year (2025) PPH is 5.36 hours (see [Equation 1: Warrant 3](#) below) considering build volume conditions. Therefore, the intersection meets criterion A.1.

The one lane eastbound approach volume at the intersection is 267 vehicles per hour during the implementation year PPH considering build volume conditions. Therefore, the second criterion (A.2) is met.

For the three approaches the total volume of traffic entering the intersection during the implementation year (2025) PPH is 1903 vehicles considering build volume conditions. Therefore, the third criterion (A.3) is met.

*Equation 1: Warrant 3*

$$72.3 \frac{\text{sec}}{\text{vehicle}} * 1903 \text{ vehicles} * \frac{1 \text{ hour}}{3600 \text{ seconds}} \\ = 5.36 \text{ vehicle} - \text{hours}$$

The Peak Hour Graph is shown on Appendix 13 which demonstrates that the peak volumes during the implementation year (2025) PPH build volume conditions do meet the volume warrant. Therefore, the intersection meets criterion B.

This study demonstrates that the Peak Hour Volume criteria for a Traffic Signal is warranted. However, a signal is not recommended at this location for the following reasons:

1) The intersection of Woodward Rd. / University Blvd. is only 430 feet north of the existing signalized ramp at Sunport Blvd. / University Blvd. Signal spacing would not be adequate if a signal were to be constructed at Woodward Rd. Based on [Table 5: Table 18.C-1 Access Spacing Standards for](#)

**Intersections and Driveways** the driveway meets the minimal access spacing standards of 330 ft for full access driveways or unsignalized intersections with non-traversal median, however it does not meet the minimum access spacing standards of 1,100 ft for signalized intersections.

Table 5: Table 18.C-1 Access Spacing Standards for Intersections and Driveways

<b>Table 18.C-1</b> <b>Access Spacing Standards for Intersections and Driveways</b> (centerline to centerline spacing in feet)						
Access Category	Posted Speed (mph)	Intersection Spacing (feet) <sup>1</sup>		Driveway Spacing (feet) <sup>2</sup>		
		Signalized	Unsignalized <sup>3</sup>	Non-Traversable Median		Traversable Median <sup>4</sup>
				Full Access	Partial Access	
Controlled-Access, Non-Interstate Highways	All Speeds	5,280	2,640	2,640	2,640	-NA-
UPA	≤ 30 mph	2,640	1,320	1,320	200	200
	35 to 40 mph	2,640	1,320	1,320	325	325
	45 to 50 mph	2,640	1,320	1,320	450	450
	≥ 55 mph	5,280	1,320	1,320	625	625
UMA	≤ 30 mph	1,760	660	660	175	175
	35 to 40 mph	1,760	660	660	275	275
	45 to 50 mph	2,640	660	660	400	400
	≥ 55 mph	5,280	1,320	1,320	600	600
UCOL	≤ 30 mph	1,100	330	330	150	150
	35 to 40 mph	1,320	330	330	225	225
	45 to 55 mph	1,760	660	660	350	350
RPA	≤ 30 mph	2,640	1,320	1,320	225	225
	35 to 40 mph	2,640	1,320	1,320	350	350
	45 to 50 mph	5,280	2,640	2,640	500	500
	≥ 55 mph	5,280	2,640	2,640	775	775
RMA	≤ 30 mph	1,760	660	660	200	200
	35 to 40 mph	2,640	660	660	325	325
	45 to 50 mph	2,640	1,320	1,320	450	450
	≥ 55 mph	5,280	2,640	2,640	725	725
RCOL	≤ 30 mph	1,320	330	330	200	200
	35 to 40 mph	1,760	660	660	300	300
	45 to 50 mph	2,640	1,320	1,320	425	425
	≥ 55 mph	2,640	1,320	1,320	550	550

2) The calculated average delay for the 2025 PPH implementation year build conditions is about 72 seconds (slightly over one minute). While, this is considered to be level-of-service “F” (more than 50 seconds of delay), it is still less delay than many intersections and driveways onto major streets in Albuquerque. The 72-second delay is expected to increase to 104 seconds of delay for the side street by the year 2035, but that does not take into account the fact that autonomous vehicles will be populating our roadways over the next ten years and, as autonomous vehicles become more and more prevalent, it will increase the capacities of the intersection over time. Thus, the projected 104 second calculated delay will likely be somewhat less.



The new Highway Capacity Manual (7<sup>th</sup> Edition) allows for the ideal saturation flow rate to be increased as a result of the implementation of autonomous vehicles. Thus, the capacity of the roadway system and intersections will be increased incrementally based on the percentage of autonomous vehicles on the roadway.

### Mitigation Analysis

The results of the intersection analysis for the unsignalized intersection of Woodward Rd. at University Blvd. are characterized by a failing LOS F, long delays surpassing 2 minutes, and a V/C ratio exceeding 1.0 for the PPH during the horizon year build volume conditions. The scenario indicates that the unsignalized intersection is slightly congested because of the projected traffic volumes generated by the University Blvd. southbound during the horizon year build volumes. With the additional growth in volumes from the proposed development, the projected delay for the horizon year (2035) increases the PPH intersection delay by 5.9 seconds and the intersection delay remains LOS “C.” The existing lane geometry of the Woodward Rd at University Blvd. intersection demonstrate the eastbound left-turn and eastbound right-turn movements are currently striped as one eastbound lane.

Although the existing geometry has one shared eastbound lane, there is sufficient pavement width for expansion to an additional eastbound lane which would separate the turning movements. It is proposed to eliminate the existing on-street parking striping and use this existing pavement section as an additional left-turn lane as well as provide improvements to the stop bar striping of the intersection. These improvements also include the elimination of the on-street parking along the north and south side of Woodward Rd. This can be seen in [Figure 4: Proposed Striping and Intersection Mitigation](#) below and attached in Appendix A-03.

*The mitigations provided for this intersection include implementing an additional eastbound left lane. The analysis of this report concludes that improving the intersection geometry of Woodward Rd. at University Blvd. intersection improves the Level of Service from a LOS “C” to a LOS “A.”*

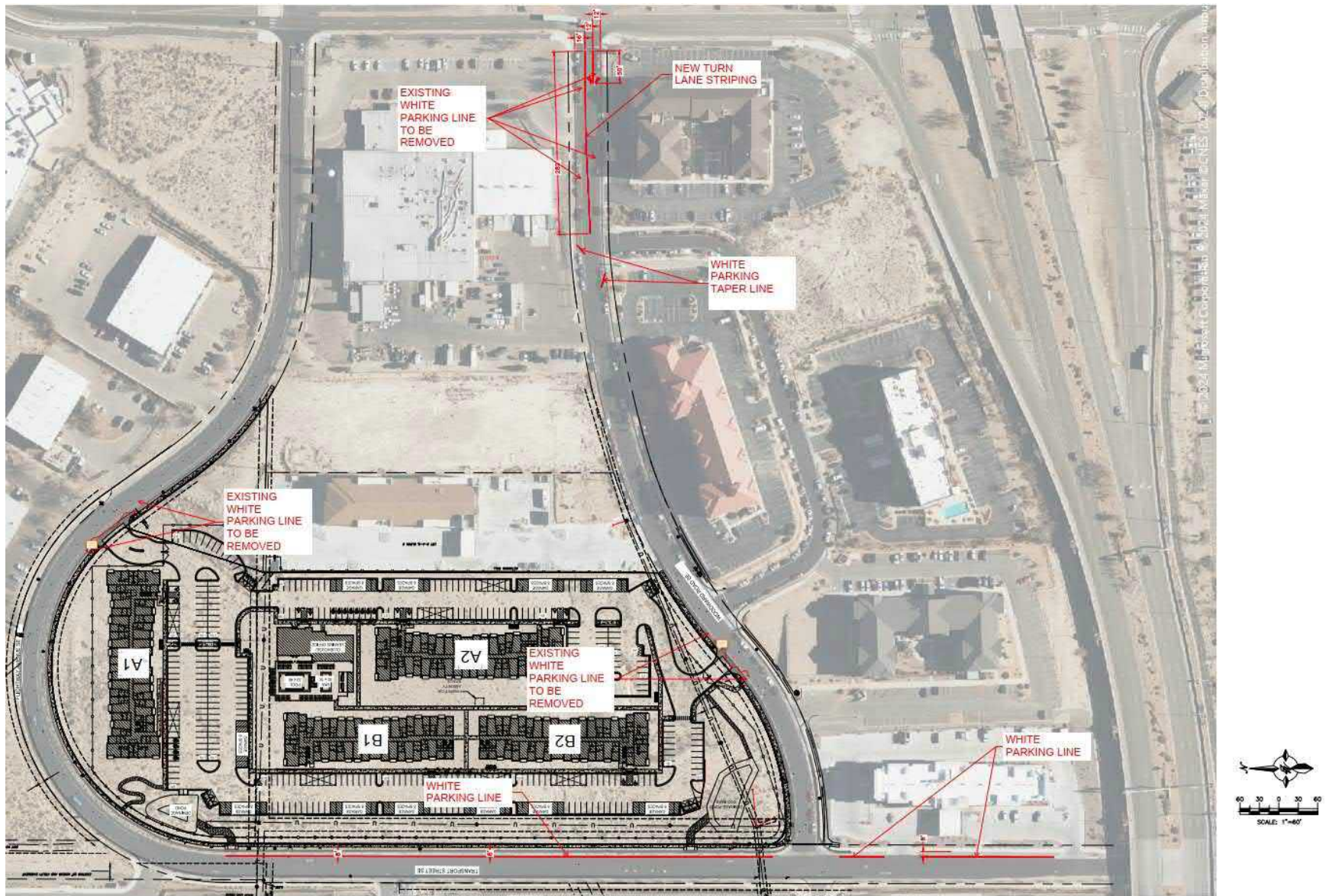


Figure 4: Proposed Striping and Intersection Mitigation

## Recommendations

Based on the LOS increase generated by the volume growth estimated during the implementation and horizon years it is recommended to perform a peak-hour warrant study for the unsignalized intersections of Woodward Rd. at University Blvd. Performing a peak hour signal warrant analysis would provide indications of whether the forecast volume would meet the warrant requirements. However, it should be noted that an intersection that meets the warrant requirements does not mandate installation of a traffic signal.

The intersection of Woodward Rd. at University Blvd. meets the Warrant 3 (Peak Hour) requirements. However, due to the proximity to the signalized intersection of Sunport Blvd. at University Blvd. a new signal is not recommended. Peak hour signal warrant spreadsheet is available in the Appendix 13. To mitigate the delays, it is recommended to remove existing on street parking along both the north and south sides of Woodward Rd. from the stop bar to 265 ft west, then add an eastbound left-turn lane. The striping and lane configuration is available in Appendix 13.

New on-street parking striping is recommended along the east side of Transport St. This will create an opportunity for additional parking for surrounding commercial lodging and residential housing. All new construction associated with this project shall maintain adequate sight distances at driveways and intersections.

This project can be accessed with the two proposed driveways shown on the site plan. Both driveways can be constructed with one entering lane and one existing lane.

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# Opus Transport Apartment

## Flightway Ave. at University Blvd, in Albuquerque, NM

### Traffic Impact Study Update

#### Introduction

The purpose of this Traffic Impact Study (TIS) is to evaluate the transportation conditions before and after implementation of the proposed Opus Transport Apartments, to determine the impact of the development on the adjacent transportation system, and then recommend improvements where necessary. This study is prepared in accordance with the requirements of the City of Albuquerque (COA).

The proposed Opus Transport Apartment site will be located east of Transport St. north of Woodward Rd., south of Flightway Ave., and west of University Blvd. in the City of Albuquerque, New Mexico. See [Figure 5: Opus Transport Apartments Vicinity Map](#) below.

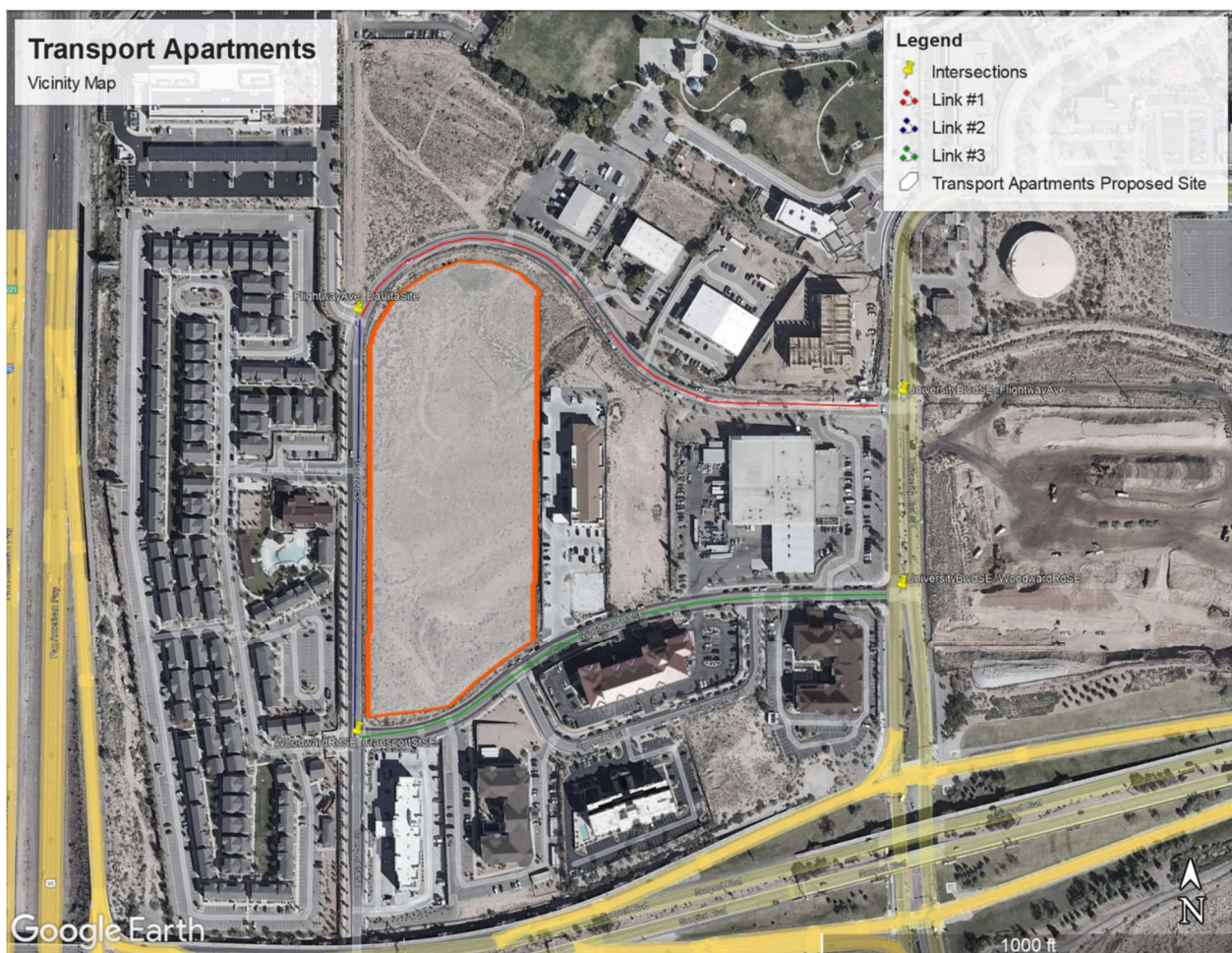


Figure 5: Opus Transport Apartments Vicinity Map

## Project Scope

The traffic impact study (TIS) scoping meeting was held on March 28, 2024. The attendees include Matthew Grush, P.E. (City of Albuquerque), Ronald R. Bohannon, P.E. (Tierra West LLC.), Terry Brown P.E. (Tierra West LLC.), Derek Bohannon (Tierra West LLC.), Jon Niski (Tierra West LLC.), Vinny Perea (Tierra West LLC.), and Jimeia Roberts (Tierra West LLC.).

At the scoping meeting, it was determined that the study area for the TIS would include the four unsignalized intersections and two access points listed below and shown on [Figure 6: Opus Transport Apartments. Intersection Reference Map](#). The City of Albuquerque scoping letter for this TIS is on Appendix 02.

1. Flightway Ave. at University Blvd. (Unsignalized)
2. Woodward Rd. at University Blvd. (Unsignalized)
3. Woodward Rd. at Transport St. (Unsignalized)
4. DaVita Access & Transport St. (Unsignalized)
5. Woodward Rd. & Driveway “A” (Unsignalized Proposed Driveway)
6. Flightway Ave. & Driveway “B” (Unsignalized Proposed Driveway)

*Transport Apartments - Albuquerque, NM*  
 (Flightway Ave / University Blvd)  
 Intersection Reference Map

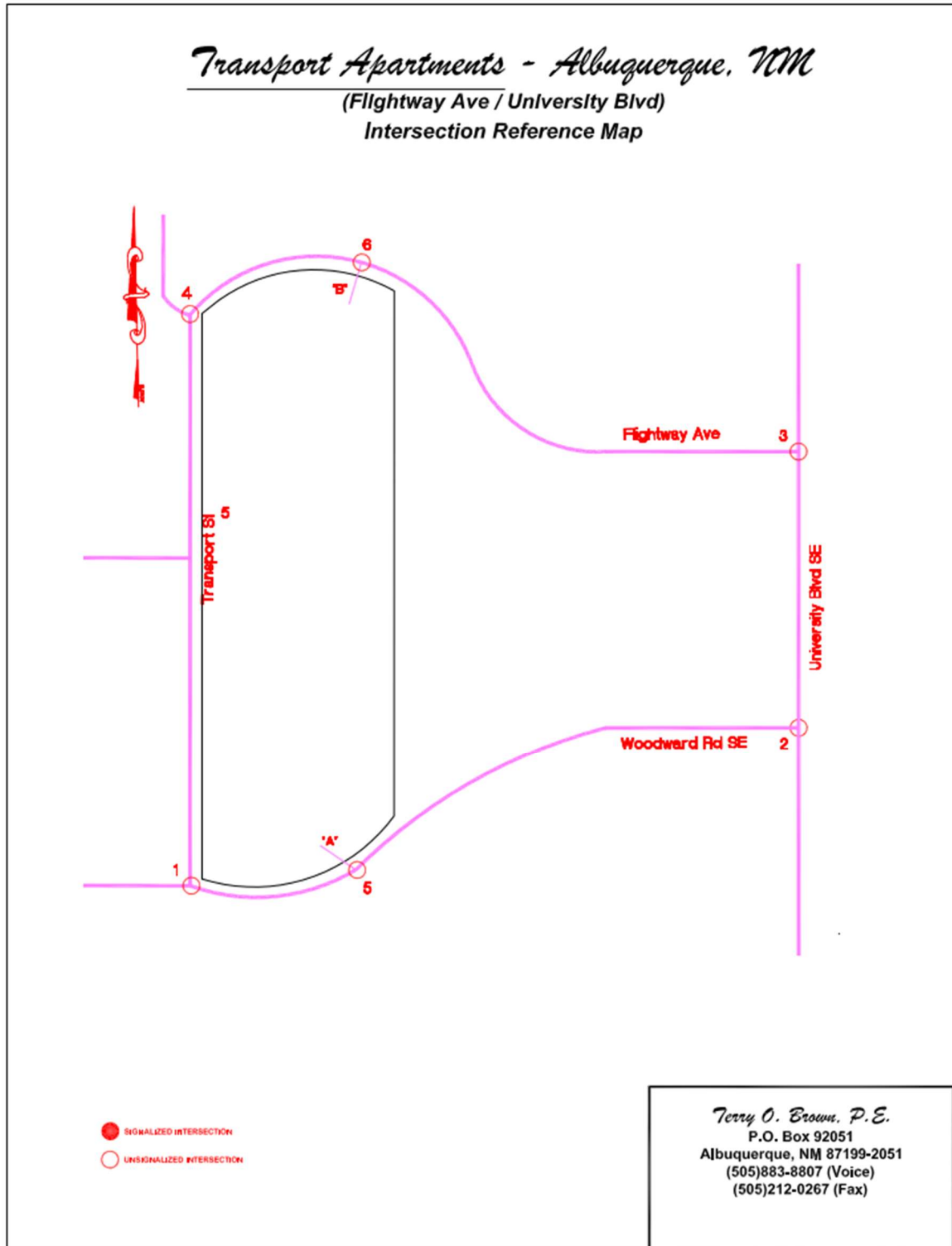


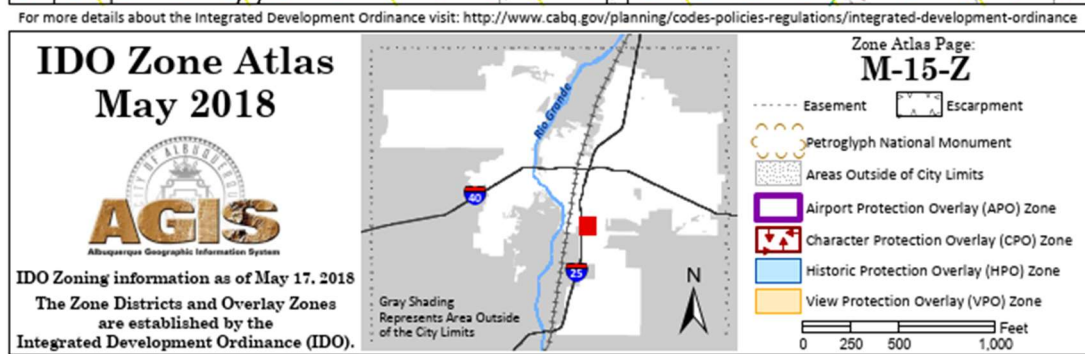
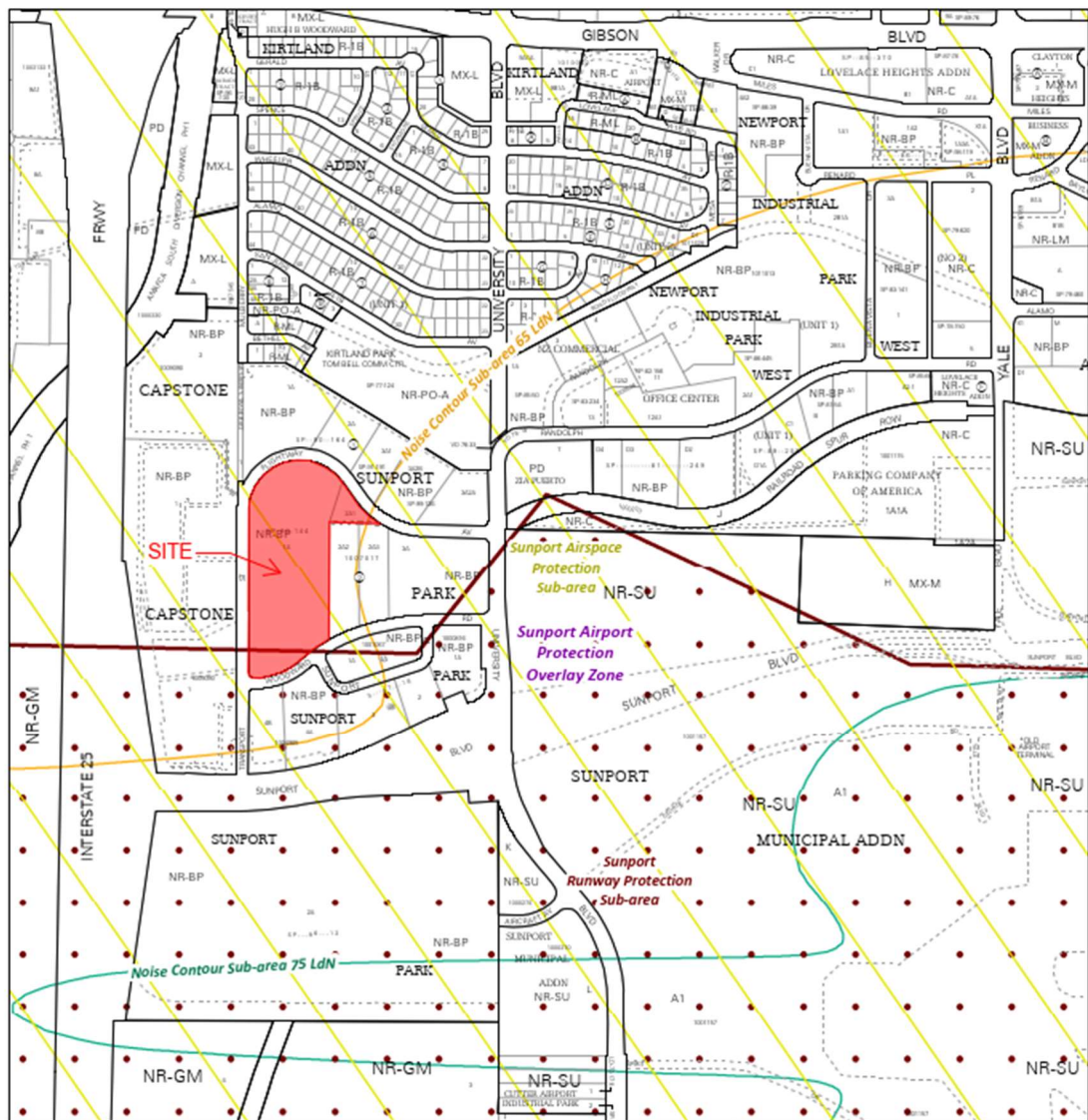
Figure 6: Opus Transport Apartments. Intersection Reference Map (Tierra West LLC, 2024)



## ***Analysis of Existing Conditions***

### **Existing and Planned Zoning**

The proposed site location is currently zoned as a Non-Residential (NP) Business Park (BP). NR\_BP zone district is to accommodate a wide range of nonresidential uses in campus-like settings to buffer potential impacts on surrounding uses and adjacent areas. The proposed site also has an Airport Protection Overlay (APO) zone 3-3, which regulates airspace protection sub area. APO requires that land use and development at or around the airport facilities comply with the regulations of the Federal Aviation Administration (FAA) that protect the public from noise, vibration, and hazard impacts of airport operations and that protect the safety of aircraft operators. Additional reflective pavement marking, nor roadway lighting is not recommended at this time pertaining to the proposed driveway access to the Opus Transport Apartments. See [Figure 7: Opus Transport Apartments Zone Atlas Map](#) below and Appendix 01.



## Existing Alternative Travel Modes

The Long Range Bikeway System indicates the University Blvd. has an existing paved trail along the west side of the roadway from Aircraft Ave. SE south and Randolph Rd. SE north. University Blvd. also has a proposed bike lane on the east side of the roadway from north of Sunport Blvd. SE to Randolph Rd. SE. There is a proposed paved trail along Flightway Ave. SE to just east of the proposed site location. A proposed bike route continues from the proposed site location along Flightway Ave. then transitions southbound along Transport St. SE. An existing paved trail is parallel to the DaVita Site Access. See [Figure 8: Futures Long Range Bikeway System](#) below and Appendix 01.



Figure 8: Futures Long Range Bikeway System

Long Range Transit Network has a secondary transit route that runs northbound and southbound along University Blvd. SE. The route name is Rio Bravo Blvd.-Sunport KAFB (222) and route code S5. See [Figure 9: ABQ Ride System Map](#) below and Appendix 01.





Figure 9: ABQ Ride System Map

## Existing Traffic Volumes

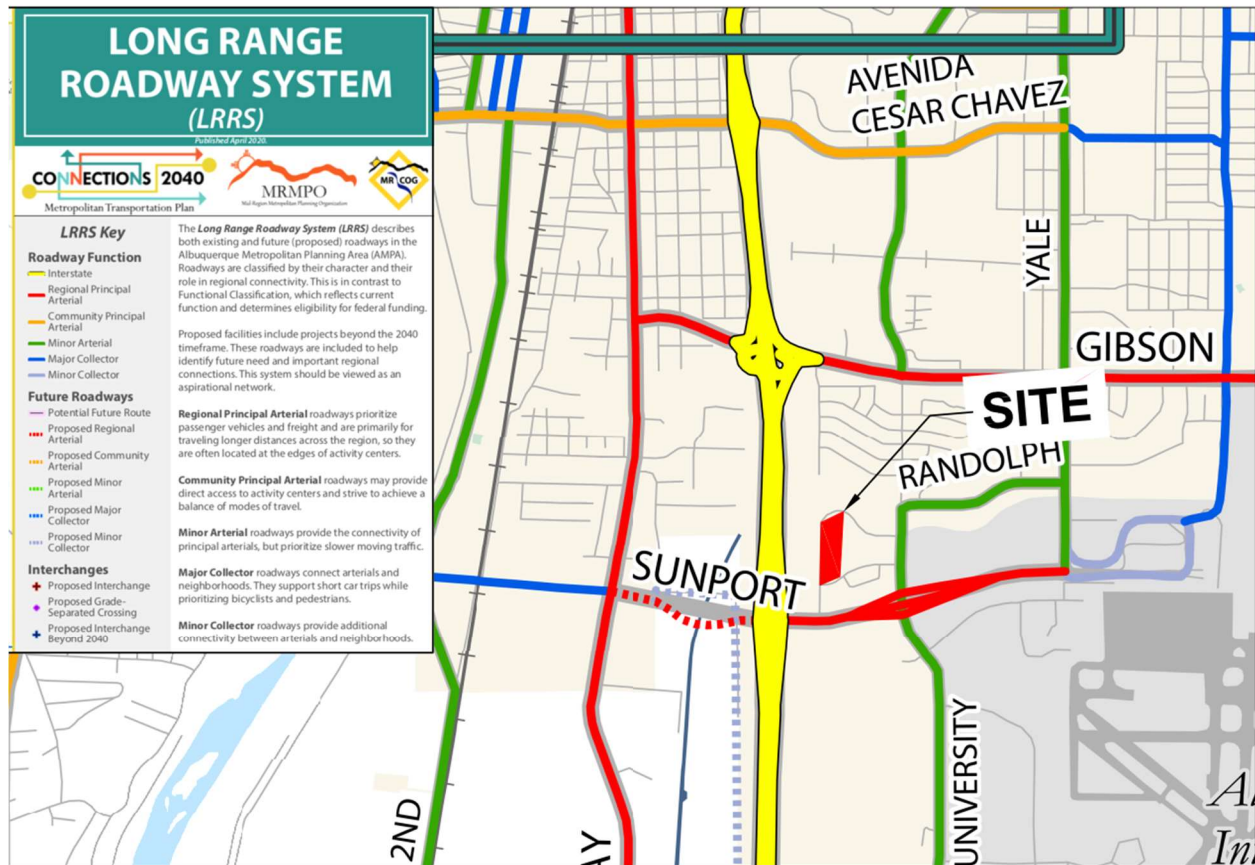
Since the Implementation Year is less than three years in the future and the annual background traffic growth rate is 0.5%, no existing analysis was performed. The Implementation Year NO BUILD analyses should closely approximate existing conditions. Existing traffic volumes (turning movement counts) were collected at the intersections targeted for analysis in this study in March 2024 and attached in Appendix 05.

Existing traffic volumes were collected during March of 2024 while school was in session. The turning movement counts for the 2025 and 2035 AM and PM Peak Hour Demand, NO BUILD, and BUILD conditions for each movement in each intersection the study area. NO BUILD volumes were generated by adjusting the existing volumes with the background traffic growth. BUILD volumes were calculated by increasing the NO BUILD volumes by the trips generated by the project. Summarized turning movement counts for 2025 volumes can be found in Appendix 08. Summarized turning movement counts for 2035 volumes can be found in Appendix 09.

## Existing Roadway System

The Long-Range Roadway System (LRRS) classifies the regional role of existing and planned future 2040 arterials within the overall network. By categorizing network links into two groups regional and community, considerations for existing and planned future 2040 transportation system improvements are ensured. The arterial categories within the study area are illustrated in [Figure 10: Futures 2040 Maps for Long Range Roadway Systems Map](#) and attached in Appendix 01.





**Portion of Futures 2040 Long Range Roadway System  
(from Mid-Region Council of Governments)**

*Figure 10: Futures 2040 Maps for Long Range Roadway Systems Map*

University Blvd. is classified as an 'Existing Minor Arterial,' on the [Figure 10: Futures 2040 Maps for Long Range Roadway Systems \(MRMPO Long Range Roadway System \(LRRS\), 2024\)](#). University Blvd. is a two lane in each direction divided roadway. Mixed use asphalt paved pedestrian sidewalks, pedestrian cross walks, and ADA pedestrian ramps, are available along University Blvd. The asphalt paved roadway has raised concrete curbs and medians, as well as gutters and sidewalks. The posted speed limit along University Blvd. within the study area is 30 MPH.

### **#1 – Unsignalized Intersection of Flightway Ave. at University Blvd.**

Flightway Ave. is a one-lane in each direction roadway with bike lanes in both directions. Sidewalks are available on both the north and south sides of the roadway, however the sidewalk along the south side of the roadway ends just east of the proposed site location. The asphalt paved roadway has raised concrete raised curbs and medians, as well as gutters and sidewalks. The T-intersection at University Blvd. has a stop controlled eastbound movement and a crosswalk along the north leg and west leg. On the south leg of the intersection on University Blvd. there is a left turn lane with 175 ft of



storage length. The speed limit on Flightway Ave. within the study area is 30 MPH. The intersection configuration is shown in *Figure 11: Unsignalized Intersection Aerial Flightway Ave. at University Blvd.*



*Figure 11: Unsignalized Intersection Aerial Flightway Ave. at University Blvd.*

## **#2 – Unsignalized Intersection of Woodward Rd. at University Blvd.**

Woodward Rd. is a one-lane in each direction roadway. On-street parking is available along the roadway in both directions. Sidewalks are available on the south side of Woodward Rd. and just east of the proposed site on the north side. The asphalt paved roadway has raised concrete raised curbs and medians, as well as gutters and sidewalks. Unmarked pedestrian crossings are available with ADA pedestrian ramps. The T-intersection at University Blvd. has stop controlled eastbound movement and a left turn lane on the south leg with 175 ft of storage length. The speed limit on Woodward Rd. within the study area is 25 MPH. The intersection configuration is shown in *Figure 12: Unsignalized Intersection Aerial of Woodward Rd. at University Blvd.*





*Figure 12: Unsignalized Intersection Aerial of Woodward Rd. at University Blvd.*

### **#3 – Unsignalized Intersection of Woodward Rd. at Transport St.**

Transport St. is a one-lane in each direction roadway. Shared bike lanes as well as on street parking are available along the roadway in both directions. Sidewalks are available on the west side of Transport St. The asphalt paved roadway has raised concrete raised curbs and medians, as well as gutters and sidewalks. Unmarked pedestrian crossings are available with ADA pedestrian ramps along the west side of the roadway. The four-leg intersection at Woodward Rd. has stop controlled eastbound and westbound directions. The speed limit on Woodward Rd. within the study area is 25 MPH. The intersection configuration is shown in *Figure 13: Unsignalized Intersection of Woodward Rd. at Transport St.*





Figure 13: Unsignalized Intersection of Woodward Rd. at Transport St.

#### #4 – Unsignalized Intersection of DaVita Access & Transport St.

The DaVita Access is a one-lane in each direction asphalt paved roadway into a private facility. Sidewalks are available on the west side of Transport St and the east side of DaVita Access. The asphalt paved roadway has raised concrete raised curbs and medians, as well as gutters and sidewalks. Unmarked pedestrian crossings are available with ADA pedestrian ramps along the east side of the roadway. The T- intersection at Transport St. has a stop controlled eastbound movement. The speed limit on DaVita Access within the study area is 25 MPH. The intersection configuration is shown in [Figure 14: Unsignalized Intersection of DaVita Access and Transport St.](#)







Figure 14: Unsignalized Intersection of DaVita Access and Transport St. (Google, 2024)

### Improvements to Existing Conditions

Existing roadway markings include lane striping at the intersection of Flightway Ave. and University, delineating an exclusive left-turn lane and right-turn lane. The yellow center line markings extend 350 ft west from the stop bar to end of “No Pass Markings” delineating the eastbound and westbound movements. On-street parking is available on the north and south sides of both Flightway Ave. and Woodward Rd.

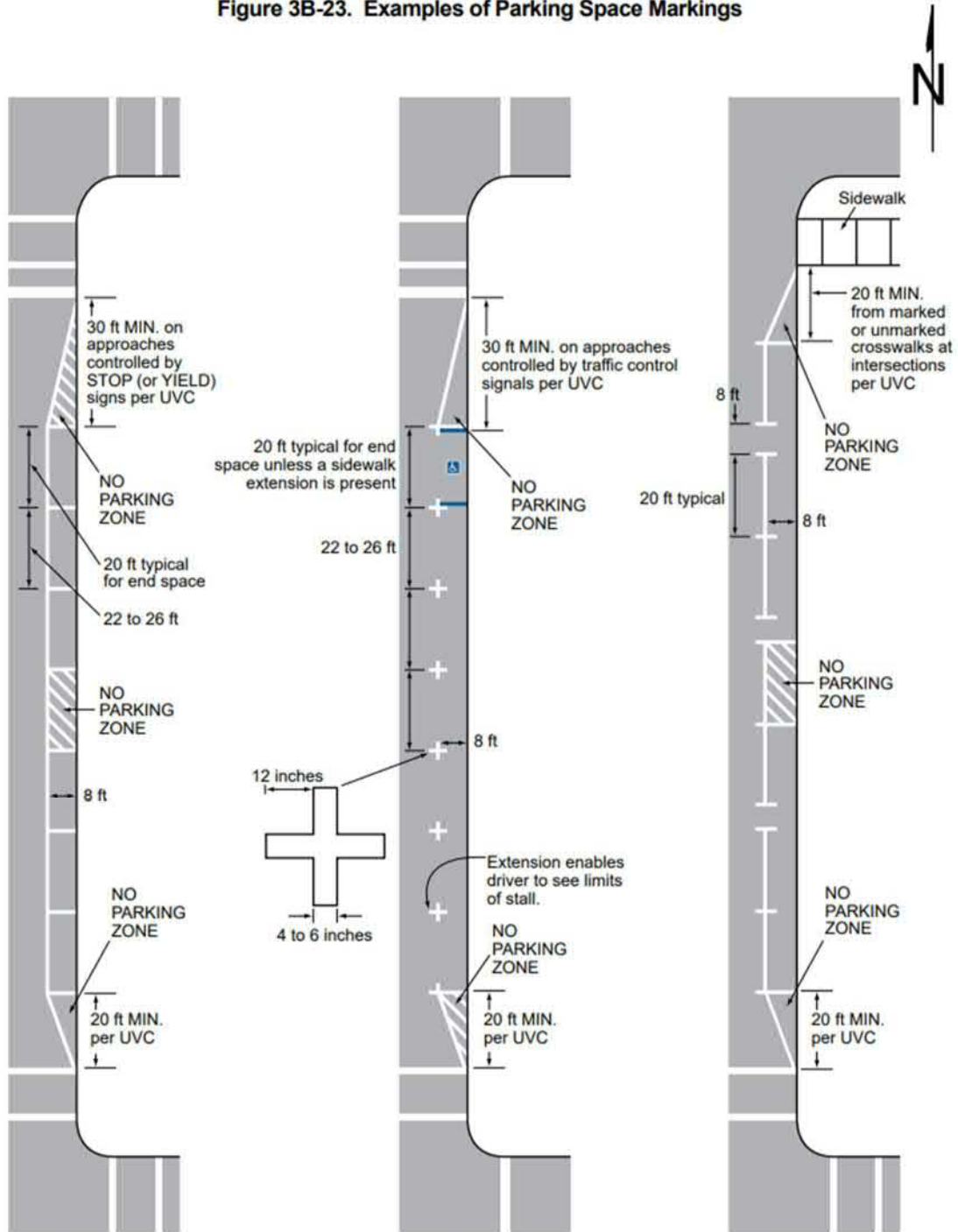
Regulations are in place by the Federal Aviation Administration regarding the installation of reflective pavement markings, traffic signs, and roadway lighting in order to protect the safety of aircraft operators. The proposed site location has only a small portion of the property within the Airport Protection Overlay zone on the southeast corner of the parcel. The recommendation for striping is for areas within the zone must meet the United States Department of Transportation Federal Aviation Administration ‘Advisory Circular’ Chapter 5. Other Surface Markings Section 5.2 Vehicle Roadway Markings.

The recommendation is to continue on-street parking along Transport St. on the east and west sides, as well as recommended improvements to the existing on-street pavement marking. Improvements include the striping of the parking space to meet [Figure 15: MUTCD Section 3B-02 Warrants for Yellow Center Lines](#) standard applies the following:

*On-street parking space markings shall be white.*



Figure 3B-23. Examples of Parking Space Markings



Sect. 3B.27

December 2023

Figure 15: MUTCD Section 3B-02 Warrants for Yellow Center Lines



## Existing Land Use and Site Access

The land for the project is undeveloped and the study area is mostly developed with residential lots with minimal commercial land use in the area. There are three proposed access driveways (Driveway ‘A’, Driveway ‘B’, and Driveway ‘C’).

### #5 – Unsignalized Intersection of Woodward Rd. at Driveway “A”

Driveway ‘A’ is a proposed right-in, right-out, and left-in only access. This is the only “full access” driveway on the southern end of the site, that will serve incoming traffic along Woodward Rd. from University Blvd.

### #6 – Unsignalized Intersection of Flightway Ave. & Driveway “B”

Driveway ‘B’ is a proposed right-in, right-out, and left-in only access. This is the only “full access” driveway on the northern end of the site, that will serve incoming traffic along Flightway Ave. from University Blvd.

## Crash Analysis

Crash data for the study area was collected for the years 2018, 2019, 2020, 2021, and 2022. The crash data was taken from the New Mexico Department of Transportation’s (NMDOT) statewide database. The crash history data was collected for the intersections (3 intersections) surrounding the Opus Transport Apartments. Based on the low number of crashes reported over the recent five-year period (35 crashes), this report finds that there are no significant safety issues in the study area. [Table 6: Opus Transport Apartments Crash Analysis Summary](#) below summarizes the crashes by year and by crash attributes:

*Table 6: Opus Transport Apartments Crash Analysis Summary*

**Crash Analysis Summary Table**  
**Transport Apartments**  
**(Flightway Ave /University Blvd)**

Crash Data from (IPRA) Internal Request

CRASH TYPE	Direction					PERCENTAGE DIRECTION	Year					SUBTOTAL	PERCENTAGE CRASH TYPE
	E	W	N	S	UNK		2018	2019	2020	2021	2022		
BACKING UP	1	0	0	0	0	3%	0	0	1	0	2	3	9%
FIXED OBJECT	1	0	1	3	1	18%	0	2	1	2	0	5	16%
LEFT-TURN ANGLE	0	1	0	0	0	3%	1	0	0	0	0	1	3%
PARKED VEHICLE	1	0	1	3	0	15%	2	0	2	0	0	4	13%
RIGHT-TURN-ANGLED	0	0	0	1	0	3%	1	2	0	0	0	3	9%
HEAD-ON COLLISION	1	2	0	1	1	15%	2	0	0	1	0	3	9%
REAR-END	0	0	1	0	0	3%	1	0	0	0	1	2	6%
SIDESWIPE LL	1	0	0	0	0	3%	0	0	1	0	1	2	6%
SIDESWIPE RL	3	0	2	1	0	18%	0	1	1	2	2	6	19%
T-BONE	0	2	0	1	0	9%	0	0	0	0	1	1	3%
OTHER	1	0	0	1	0	6%	1	0	0	1	1	3	9%
UNKNOWN	0	0	0	0	3	9%	0	2	0	0	0	2	6%
<b>SUBTOTAL</b>	<b>8</b>	<b>5</b>	<b>5</b>	<b>11</b>	<b>5</b>	<b>100%</b>	<b>8</b>	<b>7</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>35</b>	<b>100.00%</b>

Based on MUTCD warrant 7 criteria the number of crashes based on type did not exceed five or more within a 12-month period. There were no fatalities and majority of the crashes resulted in property damage based on [Table 7: Crash Analysis Attributes Summary Table](#). The summarized crash analysis tables are attached in Appendix 12.

*Table 7: Crash Analysis Attributes Summary Table*

**Crash Analysis Summary Table**  
**Transport Apartments**  
**Crash Data from IPRA**

CRASH TYPE	Year					SUBTOTAL	PERCENTAGE CRASH TYPE
	2018	2019	2020	2021	2022		
ALCOHOL INVOLVED	0	0	1	0	1	2	3.1%
CURVE	1	1	0	0	1	3	4.6%
DARK-LIGHTING	1	1	2	0	2	6	9.2%
DARK-NOT LIGHTING	0	1	0	0	1	2	3.1%
<b>FATALITY</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0%</b>
HEAVY TRUCK	1	1	0	0	0	2	3.1%
HILL CREST	1	0	0	0	1	2	3.1%
HIT-AND-RUN	1	3	3	2	2	11	16.9%
INJURY	3	0	2	1	2	8	12.3%
PROPERTY DAMAGE	5	7	4	5	6	27	41.5%
RAINING	1	0	0	0	0	1	1.5%
WORKZONE	0	0	0	0	1	1	1.5%
<b>SUBTOTAL</b>	<b>14</b>	<b>14</b>	<b>12</b>	<b>8</b>	<b>17</b>	<b>65</b>	<b>100.0%</b>

## *Analysis of Implementation Year and Horizon Year Conditions*

### **Description of Proposed Development**

The approximately 9.3-acre Opus Transport Apartments site will be located east of Transport St. north of Woodward Rd., south of Flightway Ave. and west of University Blvd. in the City of Albuquerque, New Mexico

The proposed site is to be developed as follows:

- 164-units Multifamily Housing (Mid Rise)
- 90-units Multifamily Housing (Low Rise)
- 5,140 sq-ft. Single Tenant Office Building

The proposed site plan is shown on the next page and in Appendix 03.



## Trip Generation

The ITE Codes used for the proposed Opus Transport Apartments include the following: ITE Code 221 (Multifamily Housing (Mid-Rise)), ITE Code 220 (Multifamily Housing (Low-Rise)), and ITE Code 715 (Single Tenant Office Building). **Table 8: Opus Transport Apartments Trip Generations Data** summary is below and attached in Appendix 04.

*Table 8: Opus Transport Apartments Trip Generations Data (Tierra West LLC, 2024)*

### *Transport Apartments (2900 Transport St)* **Trip Generation Data (ITE Trip Generation Manual - 11th Edition)**

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		GROSS	ENTER	EXIT	ENTER	EXIT
<b>Summary Sheet</b>						
	Units					
Multifamily Housing (Mid-Rise)	164.00	745	14	47	39	25
Multifamily Housing (Low-Rise)	90.00	607	9	27	37	22
Single Tenant Office Building (715)	5.14	67	8	1	1	8
<b>Subtotal</b>		<b>1,419</b>	<b>31</b>	<b>75</b>	<b>77</b>	<b>55</b>

## Traffic Volume Projections

The anticipated Implementation Year for this project is 2025 and the Horizon Year is 2035. MRCOG Traffic Flow Map data was used for traffic growth from 2015 to 2022 to determine the historical growth rates for the study area. The calculated growth rate at the intersections is 0.5% and is the same for both the Implementation Year and Horizon Year. See Appendix 06 for the Historic Growth Rate Graph.

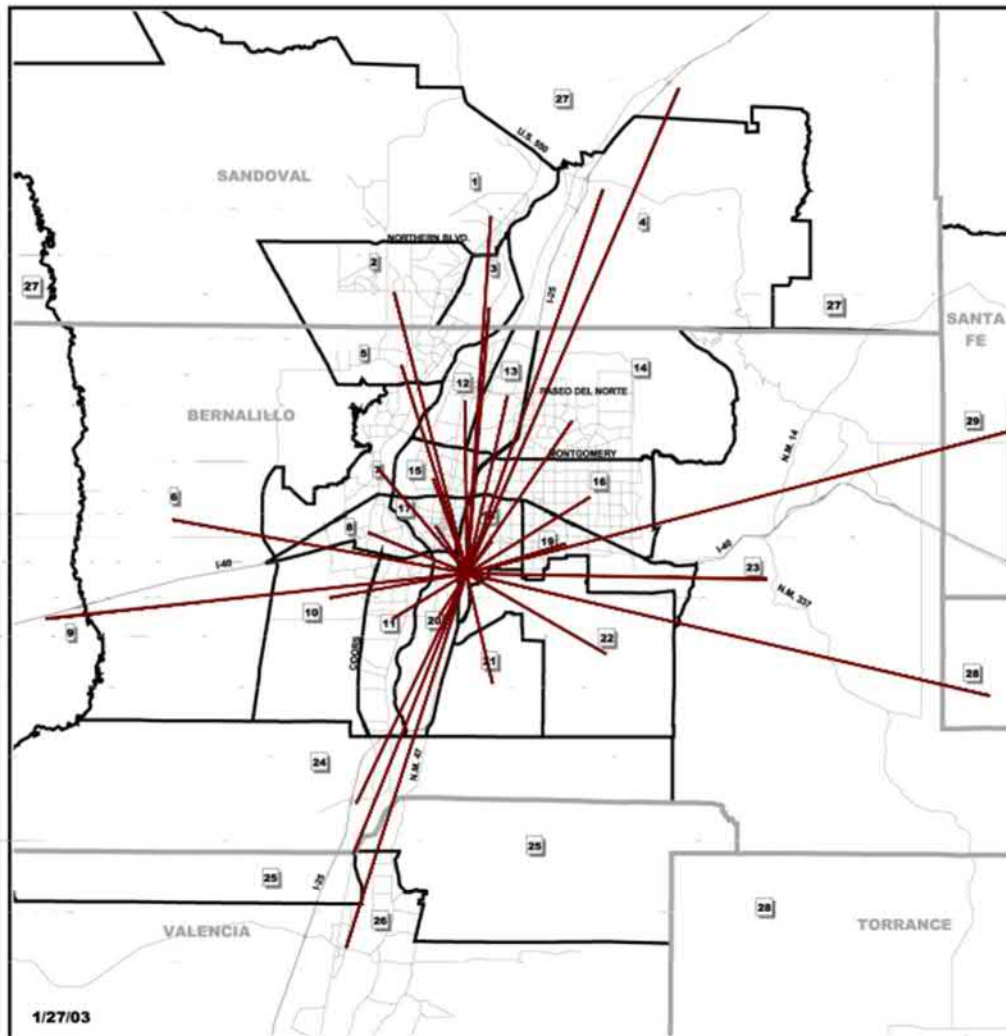
To balance traffic volumes when building the Synchro 12 model, it was assumed that westbound traffic entering from University Blvd. would terminate prior to the proposed driveway locations. This assumption was based on current conditions and commercial properties east of the proposed site location.

## Trip Distribution and Trip Assignments

The trip assignment percentages were used to distribute the trips generated to the individual traffic movements at each intersection. Trip assignments percentages for new trips entering and exiting are derived from data established in the trip distribution determination process and logical routing. Residential trips were distributed based on Mid-Region Council of Governments' Socio-economic data (2016-2040 data set).

The residential trips were distributed based on the employment distribution regionally inversely proportional to the distance of the subarea from the project. The Residential Trip Distribution Maps can

be found below in [Figure 16: Subarea Map](#) , and the [Table 9: Trip Distribution](#) used to calculate the Residential Trip Distributions percentages can be found in Appendix 07.



**Figure 6**

**22** Subarea Identification Number

**Subareas of the MRCOG Region**



**Mid-Region  
Council of Governments**  
317 Commercial NE, Suite 104  
Albuquerque, NM 87102  
505-247-1750

Subarea boundaries extend to county boundary  
where full extent of subarea not shown except for Subarea 29  
which only includes southern Santa Fe County.

**Transport Apartments  
(Flightway Ave at University Blvd)  
Residential Trip Distribution Subarea Map**

*Figure 16: Subarea Map*



Table 9: Trip Distribution

**Trip Distribution Table****Project Name: Transport Apartments****Sub Area Employment Data:**For determination of Trip Distribution for Proposed **Residential Development Trips**

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

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

									UNW)			(US)			(DN)		
									University Blvd. North			University Blvd. South			DaVita North		
Sub Area I.D.#	% Sub Area in Study	2016 Employment	2040 Employment	Interpolated Employment for the Year	Employment in Study	Dist. (Mi.)	Employment / Distance	% Employment / Distance	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
		2016	2040	2025													
1	100%	8,354	11,675	9,599	9,599	16.4	585	0.71%	20%	0.14%	117	80%	0.57%	468	0%	0.00%	0
2	100%	16,637	19,808	17,826	17,826	13.3	1,340	1.62%	20%	0.32%	268	80%	1.30%	1,072	0%	0.00%	0
3	100%	1,731	1,938	1,809	1,809	12.3	147	0.18%	20%	0.04%	29	80%	0.14%	118	0%	0.00%	0
4	100%	3,725	4,083	3,859	3,859	18.7	206	0.25%	20%	0.05%	41	80%	0.20%	165	0%	0.00%	0
5	100%	13,625	15,349	14,272	14,272	10	1,427	1.73%	20%	0.35%	285	80%	1.38%	1,142	0%	0.00%	0
6	100%	1,113	4,263	2,294	2,294	13.7	167	0.20%	30%	0.06%	50	70%	0.14%	117	0%	0.00%	0
7	100%	9,234	11,922	10,242	10,242	6.3	1,626	1.97%	30%	0.59%	488	70%	1.38%	1,138	0%	0.00%	0
8	100%	9,101	12,837	10,502	10,502	4.9	2,143	2.59%	50%	1.30%	1,072	50%	1.30%	1,072	0%	0.00%	0
9	100%	724	1,023	836	836	19.4	43	0.05%	20%	0.01%	9	80%	0.04%	34	0%	0.00%	0
10	100%	3,409	5,330	4,129	4,129	6.4	645	0.78%	20%	0.16%	129	80%	0.62%	516	0%	0.00%	0
11	100%	5,699	6,882	6,143	6,143	4	1,536	1.86%	20%	0.37%	307	80%	1.49%	1,229	0%	0.00%	0
12	100%	6,287	7,474	6,732	6,732	7.9	852	1.03%	20%	0.21%	170	80%	0.82%	682	0%	0.00%	0
13	100%	38,387	42,986	40,112	40,112	8.4	4,775	5.78%	20%	1.16%	955	80%	4.62%	3,820	0%	0.00%	0
14	100%	37,195	40,809	38,550	38,550	8.5	4,535	5.49%	20%	1.10%	907	80%	4.39%	3,628	0%	0.00%	0
15	100%	17,358	20,784	18,643	18,643	4.6	4,053	4.90%	20%	0.98%	811	80%	3.92%	3,242	0%	0.00%	0
16	100%	54,135	60,416	56,490	56,490	6.6	8,559	10.36%	80%	8.29%	6,847	20%	2.07%	1,712	0%	0.00%	0
17	100%	40,280	48,177	43,241	43,241	2.6	16,631	20.13%	50%	10.06%	8,316	50%	10.06%	8,316	0%	0.00%	0
18	100%	32,770	38,004	34,733	34,733	1.9	18,280	22.12%	75%	16.59%	13,710	20%	4.42%	3,656	5%	1.11%	914
19	100%	24,729	28,854	26,276	26,276	4.7	5,591	6.77%	50%	3.38%	2,795	50%	3.38%	2,795	0%	0.00%	0
20	100%	5,978	8,831	7,048	7,048	2.3	3,064	3.71%	0%	0.00%	0	100%	3.71%	3,064	0%	0.00%	0
21	100%	1,755	4,714	2,865	2,865	5.2	551	0.67%	0%	0.00%	0	100%	0.67%	551	0%	0.00%	0
22	100%	28,349	31,083	29,374	29,374	7.4	3,969	4.80%	0%	0.00%	0	100%	4.80%	3,969	0%	0.00%	0
23	100%	2,923	3,349	3,083	3,083	13.8	223	0.27%	0%	0.00%	0	100%	0.27%	223	0%	0.00%	0
24	100%	1,271	1,266	1,269	1,269	11.7	108	0.13%	0%	0.00%	0	100%	0.13%	108	0%	0.00%	0
25	100%	112	112	112	112	13.9	8	0.01%	0%	0.00%	0	100%	0.01%	8	0%	0.00%	0
26	100%	17,882	21,300	19,164	19,164	18	1,065	1.29%	0%	0.00%	0	100%	1.29%	1,065	0%	0.00%	0
27	100%	5,846	6,024	5,913	5,913	24.3	243	0.29%	20%	0.06%	49	80%	0.24%	195	0%	0.00%	0
28	100%	4,338	5,143	4,640	4,640	24.6	189	0.23%	80%	0.18%	151	20%	0.05%	38	0%	0.00%	0
29	100%	1,784	2,111	1,907	1,907	25.8	74	0.09%	80%	0.07%	59	20%	0.02%	15	0%	0.00%	0
		394,731	466,547	421,662	421,662		82,639	100.00%		45.46%	37,566		53.44%	44,159		1.11%	914
										45.46%			53.44%				1.11%



## Intersection Analysis

The Highway Capacity Manual establishes a criterion for the determinations of unsignalized levels-of-service. These levels determine if an intersection will be proficient enough to accommodate the projected volumes from the new development. The average control delay is calculated for each intersection and for each lane group of each leg of the intersection. The analysis of the calculated control delay determines the level of service for each lane group. However, if the v/c ratio is 1.0 or greater, then the v/c ratio overrides the calculated delay and qualifies the lane group to be LOS “F”. The control delay generally determines the level-of-service based on the following table:

### LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

<u>Average Delay</u> (secs)	<u>Level-of-Service</u>
≤ 10	A
> 10 and ≤ 15	B
> 15 and ≤ 25	C
> 25 and ≤ 35	D
> 35 and ≤ 50	E
> 50	F

For parameter of acceptance, generally a Level-of-Service D or better is an acceptable parameter for design purposes.

In summary, the proposed Opus Transport Apartments will have minimal adverse impact on the adjacent transportation system. Level of service (LOS) at the intersections in the study area meet the City of Albuquerque’s minimum acceptable Level of Service Standards for the 2025 implementation year and 2035 horizon year for all intersections in the study area.

### **Level of Service (LOS)**

According to the City of Albuquerque Design Process Manual (DPM), LOS standards are defined by Access Category. **Table 10: Design Process Manual LOS Criteria** identifies the minimum acceptable LOS standards according to Functional Classification & Roadway Type and City of Albuquerque’s ABC Comp Plan Type.

Table 10: Design Process Manual LOS Criteria

TABLE 7.5.88 Desired LOS by Location and Corridor Type							
Functional Classification & Roadway Type	ABC Comp Plan Center Type						
	Transit Station Area	Downtown	Urban Center	Activity Center	Village Center	Employment Center	Outside Center
Premium Transit	E-F	E-F	E-F	E-F	E-F	E-F	E-F
Major Transit	E	E-F	E	E	D-E	D-E	D-E
Multi-modal	E	E	E	E	D-E	D-E	D-E
Commuter	E	E	D-E	D-E	D-E	D-E	D
Other Arterial	E	E	E	D-E	D-E	D-E	D
Minor Arterial	E	E	D-E	D-E	D-E	D	D
Collector	E	D-E	D	D	C-D	C-D	C-D

University Blvd. is considered an ‘Other Arterial’ within a Transit Station Area, intersections along the University Blvd. corridor should have a LOS E or better. Build conditions should have a LOS=E or better or the proposed roadway should be mitigated to maintain the LOS at existing (No Build) condition levels.

The following Lanes / Volumes Analysis Tables demonstrate the impacts to the adjacent roadway system. The Lanes / Volumes Analysis Tables quantify the APH and PPH No Build and Build volumes along with the associated v/c ratios, LOS, calculated delays, and 95<sup>th</sup> percentile queue lengths. The Lanes / Volume Analysis Tables report the performance of proposed driveway access and existing intersections. The tables are attached in Appendix 10 and Appendix 11 for implementation year 2025 and horizon year 2035, respectively.

### #1 – Unsignalized Intersection of Flightway Ave. at University Blvd.

The results of the 2025 Implementation Year for the APH and PPH analysis of the unsignalized intersection of Flightway Ave. at University Blvd. are summarized in , as well as attached in Appendix 10. The results of the 2035 Horizon Year for the APH and PPH analysis of the unsignalized intersection of Flightway Ave. at University Blvd. are summarized in , as well as attached in Appendix 11.

Table 11: 2025 Implementation Year Flightway Ave. at University Blvd. AM Peak LVAM Summary

Flightway Ave. / University Blvd. 2025_Conditions	EB (Flightway Ave.)			NB (University Blvd.)			SB (University Blvd.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1	0	1	<1	2	0	0	2>	0
<b>AM Peak Hour</b>									
2025_NO BUILD Volumes	50		35	76	857			476	40
V/C Ratio	0.18		0.06	0.08					
Level-of-Service	C		B	A					
Control Delay (Seconds)	19.4		10.6	9.0					
<b>Intersection LOS</b>	<b>TWSC / A - 1.3</b>								
95th Percentile Queue (veh)	0.6		0.2	0.3					
2025_BUILD Volumes	73		50	80	868			481	49
V/C Ratio	0.27		0.08	0.09					
Level-of-Service	C		B	A					
Control Delay (Seconds)	21.5		10.9	9.1					
<b>Intersection LOS</b>	<b>TWSC / A - 1.8</b>								
95th Percentile Queue (veh)	1.1		0.3	0.3					
<b>PM Peak Hour</b>									
2025_NO BUILD Volumes	62		48	42	625			857	74
V/C Ratio	0.29		0.10	0.08					
Level-of-Service	D		B	B					
Control Delay (Seconds)	26.4		13.0	11.4					
<b>Intersection LOS</b>	<b>TWSC / A - 1.6</b>								
95th Percentile Queue (veh)	1.1		0.3	0.2					
2025_BUILD Volumes	79		59	53	636			869	97
V/C Ratio	0.39		0.13	0.10					
Level-of-Service	D		B	B					
Control Delay (Seconds)	31.3		13.5	11.7					
<b>Intersection LOS</b>	<b>TWSC / A - 2.2</b>								
95th Percentile Queue (veh)	1.7		0.4	0.3					

Table 12: 2035 Horizon Year Flightway Ave. at University Blvd. LVAM Summary

Flightway Ave. / University Blvd. 2035_Conditions	EB (Flightway Ave.)			NB (University Blvd.)			SB (University Blvd.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1	0	1	<1	2	0	0	2>	0
<b>AM Peak Hour</b>									
2035_NO BUILD Volumes	53		37	80	900			500	42
V/C Ratio	0.20		0.06	0.09					
Level-of-Service	C		B	A					
Control Delay (Seconds)	20.6		10.8	9.2					
<b>Intersection LOS</b>	<b>TWSC / A - 1.4</b>								
95th Percentile Queue (veh)	0.7		0.2	0.3					
2035_BUILD Volumes	76		52	84	911			505	51
V/C Ratio	0.29		0.09	0.10					
Level-of-Service	C		B	A					
Control Delay (Seconds)	23.0		11.0	9.2					
<b>Intersection LOS</b>	<b>TWSC / A - 1.8</b>								
95th Percentile Queue (veh)	1.2		0.3	0.3					
<b>PM Peak Hour</b>									
2035_NO BUILD Volumes	65		51	42	659			900	78
V/C Ratio	0.32		0.11	0.08					
Level-of-Service	D		B	B					
Control Delay (Seconds)	28.8		13.4	11.7					
<b>Intersection LOS</b>	<b>TWSC / A - 1.7</b>								
95th Percentile Queue (veh)	1.3		0.4	0.3					
2035_BUILD Volumes	82		62	53	667			912	101
V/C Ratio	0.43		0.14	0.10					
Level-of-Service	D		B	B					
Control Delay (Seconds)	34.9		13.9	12.3					
<b>Intersection LOS</b>	<b>TWSC / A - 2.3</b>								
95th Percentile Queue (veh)	2.0		0.5	0.3					

Both the implementation year and the horizon year analysis in the above tables show that the unsignalized intersection of Flightway Ave. at University Blvd. is operating at an acceptable LOS during both the APH and PPH. The V/C ratio for all approaches are very low and does not indicate that the new trips generated causes a queueing issue along Flightway Ave. The overall intersection delay experienced by the intersection of Flightway Ave. at University Blvd. is insignificant. The new trips generated by the Opus Transport Apartments do not significantly impact the overall operation of the

unsignalized intersection of Flightway Ave. at University Blvd., therefore no recommendations are suggested.

## **#2 – Unsignalized Intersection of Woodward Rd. at University Blvd.**

The results of the 2025 Implementation Year for the APH and PPH analysis of the unsignalized intersection of Woodward Rd. at University Blvd. are summarized in [Table 13: 2025 Implementation Year Woodward Rd. at University Blvd. LVAM Summary](#), as well as attached in Appendix 10. The results of the 2035 Horizon Year for the APH and PPH analysis of the unsignalized intersection of Woodward Rd. at University Blvd are summarized in [Table 14: 2035 Horizon Year Woodward Rd. at University Blvd. LVAM Summary](#), as well as attached in Appendix 11.



Table 13: 2025 Implementation Year Woodward Rd. at University Blvd. LVAM Summary

Woodward Rd. / University Blvd. 2025 Conditions	EB (Woodward Rd.)			NB (University Blvd.)			SB (University Blvd.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1>	0	0	1	2	0	0	2>	0
<b>AM Peak Hour</b>									
2025_NO BUILD Volumes	55		187	107	877			480	32
V/C Ratio	0.50			0.12					
Level-of-Service	C			A					
Control Delay (Seconds)	18.5			9.0					
<b>Intersection LOS</b>	<b>TWSC / A - 3.1</b>								
95th Percentile Queue (veh)	2.8			0.4					
2025_BUILD Volumes	66		213	119	881			495	37
V/C Ratio	0.60			0.13					
Level-of-Service	C			A					
Control Delay (Seconds)	22.4			9.2					
<b>Intersection LOS</b>	<b>TWSC / A - 4.0</b>								
95th Percentile Queue (veh)	3.9			0.4					
Mitigated Lane Geometry	1	0	1	1	2	0	0	2>	0
2025_BUILD Volumes	66		213	119	881			495	37
V/C Ratio	0.27		0.33	0.13					
Level-of-Service	C		B	A					
Control Delay (Seconds)	23.6		12.6	9.2					
<b>Intersection LOS</b>	<b>TWSC / A - 3.0</b>								
95th Percentile Queue (veh)	1.1		1.4	0.4					
<b>PM Peak Hour</b>									
Existing Lane Geometry	1>	0	0	1	2	0	0	2>	0
2025_NO BUILD Volumes	76		164	174	590			840	69
V/C Ratio	0.83			0.30					
Level-of-Service	F			B					
Control Delay (Seconds)	54.7			13.1					
<b>Intersection LOS</b>	<b>TWSC / A - 8.0</b>								
95th Percentile Queue (veh)	7.2			1.2					
2025_BUILD Volumes	84		183	205	601			851	81
V/C Ratio	1.01			0.37					
Level-of-Service	F			B					
Control Delay (Seconds)	94.7			14.3					
<b>Intersection LOS</b>	<b>TWSC / B - 14.1</b>								
95th Percentile Queue (veh)	10.6			1.7					
Mitigated Lane Geometry	1	0	1	1	2	0	0	2>	0
2025_BUILD Volumes	84		183	205	601			851	81
V/C Ratio	0.62		0.39	0.37					
Level-of-Service	F		C	B					
Control Delay (Seconds)	62.6		16.5	14.3					
<b>Intersection LOS</b>	<b>TWSC / A - 5.6</b>								
95th Percentile Queue (veh)	3.3		1.8	1.7					



Table 14: 2035 Horizon Year Woodward Rd. at University Blvd. LVAM Summary

Woodward Rd. / University Blvd. 2035_Conditions	EB (Woodward Rd.)			NB (University Blvd.)			SB (University Blvd.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1>	0	0	1	2	0	0	2>	0
<b>AM Peak Hour</b>									
2035_NO BUILD Volumes	58		196	112	921			504	34
V/C Ratio	0.55			0.12					
Level-of-Service	C			A					
Control Delay (Seconds)	20.3			9.2					
<b>Intersection LOS</b>	<b>TWSC / A - 3.4</b>								
95th Percentile Queue (veh)	3.2			0.4					
2035_BUILD Volumes	69		222	124	925			519	39
V/C Ratio	0.65			0.14					
Level-of-Service	D			A					
Control Delay (Seconds)	25.3			9.3					
<b>Intersection LOS</b>	<b>TWSC / A - 4.5</b>								
95th Percentile Queue (veh)	4.6			0.5					
Mitigated Lane Geometry	1>	0	0	1	2	0	0	2>	0
2035_BUILD Volumes	69		222	124	925			519	39
V/C Ratio	0.30		0.35	0.14					
Level-of-Service	D		B	A					
Control Delay (Seconds)	25.5		13.1	9.3					
<b>Intersection LOS</b>	<b>TWSC / A - 3.1</b>								
95th Percentile Queue (veh)	1.2		1.6	0.5					

<b>PM Peak Hour</b>									
Existing Lane Geometry	1>	0	0	1	2	0	0	2>	0
2035_NO BUILD Volumes	80		172	183	619			882	73
V/C Ratio	0.94			0.33					
Level-of-Service	F			B					
Control Delay (Seconds)	78.4			13.9					
<b>Intersection LOS</b>	<b>TWSC / B - 11.1</b>								
95th Percentile Queue (veh)	9.2			1.4					
2035_BUILD Volumes	88		191	214	630			898	85
V/C Ratio	1.16			0.42					
Level-of-Service	F			C					
Control Delay (Seconds)	147.3			16.1					
<b>Intersection LOS</b>	<b>TWSC / C - 21.2</b>								
95th Percentile Queue (veh)	13.6			2.1					
Mitigated Lane Geometry	1	0	1	1	2	0	0	2>	0
2035_BUILD Volumes	88		191	214	630			898	85
V/C Ratio	0.74		0.42	0.42					
Level-of-Service	F		C	C					
Control Delay (Seconds)	86.9		17.5	16.1					
<b>Intersection LOS</b>	<b>TWSC / A - 6.9</b>								
95th Percentile Queue (veh)	4.2		2.1	2.1					

The implementation year during the PPH experiences a decreased LOS from LOS A to LOS B for the intersection performance while remaining acceptable to COA requirements. It is indicated that there is an existing high demand for the eastbound left-turn movement which has a failing LOS F during no build volume conditions for the PPH. The V/C ratio for the eastbound left-turn uses the majority of the storage capacity for existing volume conditions during the PPH at 0.83. The delay during the PPH is calculated to be approximately 95 seconds for the eastbound left-turn implementation year build conditions. This is most likely due to the traffic volume southbound on University Blvd. The eastbound left-turn movement is stop sign controlled and shares a lane with eastbound right-turn movement, under no build conditions. Mitigation measures reduced the 95<sup>th</sup> percentile queue length from approximately 11 vehicles during the build conditions to 3 vehicles during the mitigated conditions. This reduced the eastbound left-turn delay by nearly 30 seconds to 63 seconds, and decreased the V/C from 1.01 to 0.62. The evaluation of this intersection with the proposed mitigation measures has improved the intersection performance from LOS B to LOS A, as well as reduced delays from 14 seconds to 6 seconds.

The horizon year analysis in the above tables show that the unsignalized intersection of Woodward Rd. at University Blvd. is operating at an acceptable LOS during the APH and PPH. The V/C ratio for the eastbound left-turn is 0.94 for no build volume conditions with a LOS of F during the PPH. Under build volume conditions the V/C exceeds 1.0 and the delay time almost doubles. This is reflected by the 95<sup>th</sup> percentile queue increasing from 9 vehicles to approximately 14 vehicles. Mitigation measures previously suggested were applied to install an eastbound left-turn lane. These measures reduced V/C ratio from 1.16 to 0.74 which is less than the no build conditions of 0.94. The eastbound left-turn delays decreased to 87 seconds from 147 seconds. The evaluation of this intersection with the proposed mitigation measures has improved the performance from LOS C to LOS A, as well as reduced delays from 21 seconds to 7 seconds.

Based on the additional traffic generated by the proposed Opus Transport Apartments mitigation measures are suggested. It is recommended that the proposed mitigation measures be applied to the intersection of Woodward Rd. at University Blvd. The mitigation measures considered are an additional eastbound left-turn lane, and the removal of on street parking within 265 ft west of the intersection on both the north and south sides along Woodward Rd. The mitigation measure to the geometry of the intersection is expounded on in the Mitigation Analysis section of this TIS report.

The overall intersection delay experienced by the intersection of Woodward Rd. at University Blvd. is 21.2 seconds, LOS C. The new trips generated by the Opus Transport Apartments do not

significantly impact on the overall operation of the unsignalized intersection of Woodward Rd. at University Blvd., however it is recommended that an eastbound left-turn lane be installed to increase capacity and mitigate the impact of this development on the intersection. Mitigated lane geometry was analyzed and indicated that the measures alleviate the overall intersection LOS from LOS C for build conditions to LOS A for mitigated build conditions.

### **#3 – Unsignalized Intersection of Woodward Rd. at Transport St.**

The results of the 2025 Implementation Year for the APH and PPH analysis of the signalized intersection of Woodward Rd. at Transport St. are summarized in [Table 15: 2025 Implementation Year Woodward Rd. at Transport St. LVAM Summary](#), as well as attached in Appendix 10. The results of the 2035 Horizon Year for the APH and PPH analysis of the signalized intersection of Woodward Rd. at Transport St. are summarized in [Table 16: 2035 Horizon Year Woodward Rd. at Transport St. LVAM Summary](#), as well as attached in Appendix 11.

Table 15: 2025 Implementation Year Woodward Rd. at Transport St. LVAM Summary

Woodward Rd. / Transport St. 2025 Conditions	EB (Woodward Rd.)			WB (Woodward Rd.)			NB (Transport St.)			SB (Transport St.)		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	0	<1>	0	0	<1>	0	0	<1>	0	0	<1>	0
<b>AM Peak Hour</b>												
2025_NO BUILD Volumes	0			1		52	0	1	12	71	0	
V/C Ratio				0.05						0.05		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0			8.6			0.0			7.3	0.0	
<b>Intersection LOS</b>	<b>TWSC / A - 7.1</b>											
95th Percentile Queue (veh)				0.2			0.0			0.2		
2025_BUILD Volumes	0			1		57	0	1	12	75	0	
V/C Ratio				0.06						0.05		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0			8.6			0.0			7.4	0.0	
<b>Intersection LOS</b>	<b>TWSC / A - 7.2</b>											
95th Percentile Queue (veh)				0.2			0.0			0.2		
<b>PM Peak Hour</b>												
2025_NO BUILD Volumes	0			4		51	0	1	11	82	4	
V/C Ratio				0.06						0.06		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0			8.6			0.0			7.4	0.0	
<b>Intersection LOS</b>	<b>TWSC / A - 7.1</b>											
95th Percentile Queue (veh)				0.2			0.0			0.2		
2025_BUILD Volumes	0			4		57	0	1	11	87	4	
V/C Ratio				0.06						0.06		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0			8.7			0.0			7.4	0.0	
<b>Intersection LOS</b>	<b>TWSC / A - 7.2</b>											
95th Percentile Queue (veh)				0.2			0.0			0.2		

Table 16: 2035 Horizon Year Woodward Rd. at Transport St. LVAM Summary

Woodward Rd. / Transport St. 2035 Conditions	EB (Woodward Rd.)			WB (Woodward Rd.)			NB (Transport St.)			SB (Transport St.)		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	0	<1>	0	0	<1>	0	0	<1>	0	0	<1>	0
<b>AM Peak Hour</b>												
2035_NO BUILD Volumes	0			1		55	0	1	13	75	0	
V/C Ratio				0.06						0.05		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0			8.6			0.0			7.4	0.0	
<b>Intersection LOS</b>	<b>TWSC / A - 7.1</b>											
95th Percentile Queue (veh)				0.2			0.0			0.2		
2035_BUILD Volumes	0			1		60	0	1	13	79	0	
V/C Ratio				0.06						0.05		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0			8.6			0.0			7.4	0.0	
<b>Intersection LOS</b>	<b>TWSC / A - 7.2</b>											
95th Percentile Queue (veh)				0.2			0.0			0.2		
<b>PM Peak Hour</b>												
2035_NO BUILD Volumes	0			4		54	0	1	12	87	4	
V/C Ratio				0.06						0.06		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0			8.7			0.0			7.4	0.0	
<b>Intersection LOS</b>	<b>TWSC / A - 7.1</b>											
95th Percentile Queue (veh)				0.2			0.0			0.2		
2035_BUILD Volumes	0			4		60	0	1	12	92	4	
V/C Ratio				0.07						0.06		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0			8.7			0.0			7.4	0.0	
<b>Intersection LOS</b>	<b>TWSC / A - 7.2</b>											
95th Percentile Queue (veh)				0.2			0.0			0.2		

Both the implementation year and the horizon year analysis in the above tables show the unsignalized intersection of Woodward Rd. at Transport St. is operating at an acceptable level of service for all conditions evaluated in this study. The V/C and the 95<sup>th</sup> percentile queue length are negligible for each approached analyzed. The delay experienced by the intersection is 7.1 seconds and 7.2 seconds for both the APH and PPH during both the implementation year and horizon year. The new trips generated for the Opus Transport Apartments present no significant adverse impact to this unsignalized intersection.

#### #4 – Unsignalized Intersection of DaVita Access & Transport St.

The results of the 2025 Implementation Year and Horizon Year for the unsignalized intersection of DaVita Access could not be analyzed based on HCM TWSC criteria since the intersection stop control is in one direction.

### **#5 – Unsignalized Intersection of Woodward Rd. at Driveway “A”**

The results of the 2025 Implementation Year for the APH and PPH analysis of the unsignalized intersection of Woodward Rd. at Driveway “A” are summarized in [Table 17: 2025 Implementation Year Woodward Rd. at Driveway “A” LVAM Summary](#), as well as attached in Appendix 10. The results of the 2035 Horizon Year for the APH and PPH analysis of the unsignalized intersection of Woodward Rd. at Driveway “A” are summarized in [Table 18: 2035 Horizon Year Woodward Rd. at Driveway “A” LVAM Summary](#), as well as attached in Appendix 11.



Table 17: 2025 Implementation Year Woodward Rd. at Driveway "A" LVAM Summary

Woodward Rd. / Driveway "A" 2025 Conditions	EB (Woodward Rd.)			WB (Woodward Rd.)			SB (Driveway "A")		
	L	T	R	L	T	R	L	T	R
Proposed Lane Geometry	0	<1	0	0	1>	0	1>	0	0
AM Peak Hour									
2025_BUILD Volumes	1	86			55	16	34		3
V/C Ratio	0.00						0.05		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.3	0.0					9.5		
Intersection LOS	TWSC / A - 1.8								
95th Percentile Queue (veh)	0.0						0.2		
Mitigated Lane Geometry	0	<1	0	0	1>	0	1>	0	0
2025_BUILD Volumes	1	86			55	16	34		3
V/C Ratio	0.00						0.05		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.3	0.0					9.5		
Intersection LOS	TWSC / A - 1.8								
95th Percentile Queue (veh)	0.0						0.2		
PM Peak Hour									
Proposed Lane Geometry	0	<1	0	0	1>	0	1>	0	0
2025_BUILD Volumes	3	95			59	39	25		2
V/C Ratio	0.00						0.03		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.4	0.0					9.6		
Intersection LOS	TWSC / A - 1.3								
95th Percentile Queue (veh)	0.0						0.1		
Mitigated Lane Geometry	0	<1	0	0	1>	0	1>	0	0
2025_BUILD Volumes	3	95			59	39	25		2
V/C Ratio	0.00						0.04		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.4	0.0					9.6		
Intersection LOS	TWSC A - 1.3								
95th Percentile Queue (veh)	0.0						0.1		

Table 18: 2035 Horizon Year Woodward Rd. at Driveway "A" LVAM Summary

Woodward Rd. / Driveway "A" 2035_Conditions	EB (Woodward Rd.)			WB (Woodward Rd.)			SB (Driveway "A")		
	L	T	R	L	T	R	L	T	R
Proposed Lane Geometry	0	<1	0	0	1>	0	1>	0	0
<b>AM Peak Hour</b>									
2035_NO BUILD Volumes	1	91			58	16	34		3
V/C Ratio	0.00						0.05		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.4	0.0					9.5		
<b>Intersection LOS</b>	<b>TWSC / A - 1.8</b>								
95th Percentile Queue (veh)	0.0						0.2		
Mitigated Lane Geometry	0	<1	0	0	1>	0	1>	0	0
2035_NO BUILD Volumes	1	91			58	16	34		3
V/C Ratio	0.00						0.05		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.4	0.0					9.5		
<b>Intersection LOS</b>	<b>TWSC / A - 1.8</b>								
95th Percentile Queue (veh)	0.0						0.2		

<b>PM Peak Hour</b>									
Proposed Lane Geometry	0	<1	0	0	1>	0	1>	0	0
2035_BUILD Volumes	3	100			62	39	25		2
V/C Ratio	0.00						0.04		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.4	0.0					9.7		
<b>Intersection LOS</b>	<b>TWSC / A - 1.2</b>								
95th Percentile Queue (veh)	0.0						0.1		
Mitigated Lane Geometry	0	<1	0	0	1>	0	1>	0	0
2035_NO BUILD Volumes	3	100			62	39	25		2
V/C Ratio	0.00						0.04		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.4	0.0					9.7		
<b>Intersection LOS</b>	<b>TWSC / A - 1.2</b>								
95th Percentile Queue (veh)	0.0						0.1		

Both the implementation year and the horizon year analysis in the above tables show the proposed driveway on Woodward Rd. at Driveway "A" is operating at an acceptable level of service for all conditions evaluated in this study. The V/C and the 95<sup>th</sup> percentile queue length are negligible for each approached analyzed. The delay experienced by the intersection is between 1.2 seconds and 1.8 seconds for both the APH and PPH during both the implementation year and horizon year. Calculated

reductions to the delay time for intersection are indicated. This can be attributed to the mitigate measures eastbound and delay reductions at the intersection of University Blvd. The new trips generated by Opus Transport Apartments present no significant adverse impact to this proposed driveway.

#### **#6 – Unsignalized Intersection of Flightway Ave. & Driveway “B”**

The results of the 2025 Implementation Year for the APH and PPH analysis of the unsignalized intersection of Flightway Ave. at Driveway “B” are summarized in [Table 19: 2025 Implementation Year Flightway Ave. at Driveway “B” LVAM Summary](#) , as well as attached in Appendix 10. The results of the 2035 Horizon Year for the APH and PPH analysis of the unsignalized intersection of Flightway Ave. at Driveway “B” are summarized in [Table 20: 2035 Horizon Year Flightway Ave. at Driveway “B” LVAM Summary](#), as well as attached in Appendix 11.

Table 19: 2025 Implementation Year Flightway Ave. at Driveway "B" LVAM Summary

Flightway Ave / Driveway "B" 2025_Conditions	EB (Flightway Ave)			WB (Flightway Ave)			NB (Driveway "B")		
	L	T	R	L	T	R	L	T	R
Proposed Lane Geometry	0	1>	0	0	<1	0	1>	0	0
AM Peak Hour									
2025_BUILD Volumes		66	2	12	86		3		35
V/C Ratio				0.01			0.04		
Level-of-Service				A	A		A		
Control Delay (Seconds)				7.4	0.0		8.9		
Intersection LOS	TWSC / A - 2.1								
95th Percentile Queue (veh)				0.0			0.1		
Proposed Lane Geometry	0	1>	0	0	<1	0	1>	0	0
2025_BUILD Volumes		66	2	12	86		3		35
V/C Ratio				0.01			0.04		
Level-of-Service				A	A		A		
Control Delay (Seconds)				7.4	0.0		8.9		
Intersection LOS	TWSC / A - 2.1								
95th Percentile Queue (veh)				0.0			0.1		

PM Peak Hour									
Proposed Lane Geometry	0	1>	0	0	<1	0	1>	0	0
2025_BUILD Volumes		81	4	31	97		2		26
V/C Ratio				0.02			0.03		
Level-of-Service				A	A		A		
Control Delay (Seconds)				7.4	0.0		8.9		
Intersection LOS	TWSC / A - 2.0								
95th Percentile Queue (veh)				0.1			0.1		
Proposed Lane Geometry	0	1>	0	0	<1	0	1>	0	0
2025_BUILD Volumes		81	4	31	97		2		26
V/C Ratio				0.02			0.03		
Level-of-Service				A	A		A		
Control Delay (Seconds)				7.4	0.0		8.9		
Intersection LOS	TWSC / A - 2.0								
95th Percentile Queue (veh)				0.1			0.1		

Table 20: 2035 Horizon Year Flightway Ave. at Driveway "B" LVAM Summary

Flightway Ave / Driveway "B" 2035_Conditions	EB (Flightway Ave)			WB (Flightway Ave)			NB (Driveway "B")		
	L	T	R	L	T	R	L	T	R
Proposed Lane Geometry	0	1>	0	0	<1	0	1>	0	0
<b>AM Peak Hour</b>									
2035_NO BUILD Volumes		69	2	12	91		3		35
V/C Ratio				0.01			0.04		
Level-of-Service				A	A		A		
Control Delay (Seconds)				7.4	0.0		8.9		
<b>Intersection LOS</b>	<b>TWSC / A - 1.8</b>								
95th Percentile Queue (veh)				0.0			0.1		
Mitigated Lane Geometry	0	1>	0	0	<1	0	1>	0	0
2035_NO BUILD Volumes		69	2	12	91		3		35
V/C Ratio				0.01			0.04		
Level-of-Service				A	A		A		
Control Delay (Seconds)				7.4	0.0		8.9		
<b>Intersection LOS</b>	<b>TWSC / A - 2.0</b>								
95th Percentile Queue (veh)				0.0			0.1		

<b>PM Peak Hour</b>									
Proposed Lane Geometry	0	1>	0	0	<1	0	1>	0	0
2035_BUILD Volumes		85	4	31	102		2		26
V/C Ratio				0.02			0.03		
Level-of-Service				A	A		A		
Control Delay (Seconds)				7.4	0.0		8.9		
<b>Intersection LOS</b>	<b>TWSC / A - 1.9</b>								
95th Percentile Queue (veh)				0.1			0.1		
Proposed Lane Geometry	0	1>	0	0	<1	0	1>	0	0
2035_NO BUILD Volumes		85	4	31	102		2		26
V/C Ratio				0.02			0.03		
Level-of-Service				A	A		A		
Control Delay (Seconds)				7.4	0.0		8.9		
<b>Intersection LOS</b>	<b>TWSC / A - 1.9</b>								
95th Percentile Queue (veh)				0.1			0.1		

Both the implementation year and the horizon year analysis in the above tables show the proposed driveway on Flightway Ave. at Driveway "B" is operating at an acceptable level of service for all conditions evaluated in this study. The new trips generated by Opus Transport Apartments present no significant adverse impact to this proposed driveway.

### **Intersection Analysis Summary**

The results of the Implementation Year (2025) and Horizon Year (2035) APH and PPH NO BUILD and BUILD conditions are summarized in . All intersections within the study area are performing at a LOS B or above.





Table 21: Intersection LOS Analysis Summary Table

**Intersection LOS Analysis Summary Table**  
**Transport Apartments**  
**(Flightway Ave /University Blvd)**

	Intersection Description	Intersection Operation	Case Evaluation	Implementation Year (2025) Conditions		Horizon Year (2035) Conditions	
				AM Peak LOS-Delay (s)	PM Peak LOS-Delay (s)	AM Peak LOS-Delay (s)	PM Peak LOS-Delay (s)
1	Flightway Ave. / University Blvd.	Unsignalized	No Build Build	A (1.3) A (1.8)	A (1.6) A (2.2)	A (1.4) A (1.8)	A (1.7) A (2.3)
2	Woodward Rd. / University Blvd.	Unsignalized	No Build Build Mitigated	A (3.1) A (4.0) A (3.0)	A (8.0) C (21.2) A (5.6)	A (3.4) A (4.5) A (3.1)	B (11.1) C (21.2) A (6.9)
3	Woodward Rd. / Transport St.	Unsignalized	No Build Build	A (7.1) A (7.2)	A (7.1) A (7.2)	A (7.1) A (7.2)	A (7.1) A (7.2)
5	Woodward Rd. / Driveway "A"	Unsignalized	Build Mitigated	A (1.8) A (1.8)	A (1.3) A (1.3)	A (1.8) A (1.8)	A (1.2) A (1.2)
6	Flightway Ave. / Driveway "B"	Unsignalized	Build Mitigated	A (2.1) A (2.1)	A (2.0) A (2.0)	A (1.8) A (2.0)	A (1.9) A (1.9)

The LOS at the unsignalized intersection of Woodward Rd. at University Blvd. during the 2025 PM Peak Hour period does not meet the minimum City of Albuquerque LOS E requirement for the eastbound left-turn movement. As a result, a Peak Hour Signal Warrant (Warrant 3) was performed for the intersection.

The guidelines in the Manual on Uniform Traffic Control Devices for Warrant #3 are as follows:

*Section 4C.04 Warrant 3, Peak Hour*

*Support:*

*The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.*

*Standard:*

*This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.*

*The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:*

*A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:*

- 1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and*
- 2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and*
- 3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.*

*B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-*

*minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.*

*Option:*

*If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-4 may be used in place of Figure 4C-3 to evaluate the criteria in the second category of the Standard.*

*If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.*

The total stopped delay at the intersection of Woodward Rd. at University Blvd. during the implementation year (2025) PPH is 5.36 hours (see [Equation 2: Warrant 3](#) below) considering build volume conditions. Therefore, the intersection meets criterion A.1.

The one lane eastbound approach volume at the intersection is 267 vehicles per hour during the implementation year PPH considering build volume conditions. Therefore, the second criterion (A.2) is met.

For the three approaches the total volume of traffic entering the intersection during the implementation year (2025) PPH is 1903 vehicles considering build volume conditions. Therefore, the third criterion (A.3) is met.

*Equation 2: Warrant 3*

$$\begin{aligned} &72.3 \frac{\text{sec}}{\text{vehicle}} * 1903 \text{ vehicles} * \frac{1 \text{ hour}}{3600 \text{ seconds}} \\ &= 5.36 \text{ vehicle} - \text{hours} \end{aligned}$$

The Peak Hour Graph is shown on Appendix 13 which demonstrates that the peak volumes during the implementation year (2025) PPH build volume conditions do meet the volume warrant. Therefore, the intersection meets criterion B.

This study demonstrates that the Peak Hour Volume criteria for a Traffic Signal is warranted. However, a signal is not recommended at this location for the following reasons:

1) The intersection of Woodward Rd. / University Blvd. is only 430 feet north of the existing signalized ramp at Sunport Blvd. / University Blvd. Signal spacing would not be adequate if a signal were to be constructed at Woodward Rd. Based on [Table 22: Access Spacing Standards for Intersections](#)

and Driveways the driveway meets the minimal access spacing standards of 330 ft for full access driveways or unsignalized intersections with non-traversal median, however it does not meet the minimum access spacing standards of 1,100 ft for signalized intersections.

Table 22: Access Spacing Standards for Intersections and Driveways

<b>Table 18.C-1</b> <b>Access Spacing Standards for Intersections and Driveways</b> (centerline to centerline spacing in feet)						
Access Category	Posted Speed (mph)	Intersection Spacing (feet) <sup>1</sup>		Driveway Spacing (feet) <sup>2</sup>		
		Signalized	Unsignalized <sup>3</sup>	Non-Traversable Median		Traversable Median <sup>4</sup>
				Full Access	Partial Access	
Controlled-Access, Non-Interstate Highways	All Speeds	5,280	2,640	2,640	2,640	-NA-
UPA	≤ 30 mph	2,640	1,320	1,320	200	200
	35 to 40 mph	2,640	1,320	1,320	325	325
	45 to 50 mph	2,640	1,320	1,320	450	450
	≥ 55 mph	5,280	1,320	1,320	625	625
UMA	≤ 30 mph	1,760	660	660	175	175
	35 to 40 mph	1,760	660	660	275	275
	45 to 50 mph	2,640	660	660	400	400
	≥ 55 mph	5,280	1,320	1,320	600	600
UCOL	≤ 30 mph	1,100	330	330	150	150
	35 to 40 mph	1,320	330	330	225	225
	45 to 55 mph	1,760	660	660	350	350
RPA	≤ 30 mph	2,640	1,320	1,320	225	225
	35 to 40 mph	2,640	1,320	1,320	350	350
	45 to 50 mph	5,280	2,640	2,640	500	500
	≥ 55 mph	5,280	2,640	2,640	775	775
RMA	≤ 30 mph	1,760	660	660	200	200
	35 to 40 mph	2,640	660	660	325	325
	45 to 50 mph	2,640	1,320	1,320	450	450
	≥ 55 mph	5,280	2,640	2,640	725	725
RCOL	≤ 30 mph	1,320	330	330	200	200
	35 to 40 mph	1,760	660	660	300	300
	45 to 50 mph	2,640	1,320	1,320	425	425
	≥ 55 mph	2,640	1,320	1,320	550	550

2) The calculated average delay for the 2025 PPH implementation year build conditions are about 72 seconds (slightly over one minute). While, this is considered to be level-of-service “F” (more than 50 seconds of delay), it is still less delay than many intersections and driveways onto major streets in Albuquerque. The 94-second delay is expected to increase to 148 seconds of delay for the side street by the year 2035, but that does not take into account the fact that autonomous vehicles will be populating our roadways over the next ten years and, as autonomous vehicles become more and more prevalent, it will increase the capacities of the intersection over time. Thus, the projected 148 second calculated delay will likely be somewhat less.

The new Highway Capacity Manual (7<sup>th</sup> Edition) allows for the ideal saturation flow rate to be increased as a result of the implementation of autonomous vehicles. Thus, the capacity of the roadway system and intersections will be increased incrementally based on the percentage of autonomous vehicles on the roadway.

## Mitigation Analysis

The results of the intersection analysis for the unsignalized intersection of Woodward Rd. at University Blvd. are characterized by a failing LOS F, long delays surpassing 2 minutes, and a V/C ratio exceeding 1.0 for the PPH during the horizon year build volume conditions. The scenario indicates that the unsignalized intersection is slightly congested because of the projected traffic volumes generated by the University Blvd. southbound during the horizon year build volumes. With the additional growth in volumes from the proposed development, the projected delay for the horizon year (2035) increases the PPH intersection delay by 5.9 seconds and the intersection delay remains LOS “C.” The existing lane geometry of the Woodward Rd at University Blvd. intersection demonstrate the eastbound left-turn and eastbound right-turn movements are currently striped as one eastbound lane.

Although the existing geometry has one shared eastbound lane, there is sufficient pavement width for expansion to an additional eastbound lane which would separate the turning movements. It is proposed to eliminate the existing on-street parking striping and use this existing pavement section as an additional left-turn lane as well as provide improvements to the stop bar striping of the intersection. These improvements also include elimination of the on-street parking along the north and south sides of Woodward Rd. This can be seen in [Figure 17: Proposed Striping and Intersection Mitigation](#) below and attached in Appendix A-03.

*The mitigations provided for this intersection include implementing an additional eastbound left lane. The analysis of this report concludes that improving the intersection geometry of Woodward Rd. at University Blvd. intersection improves the Level of Service from a LOS “C” to a LOS “A.”*





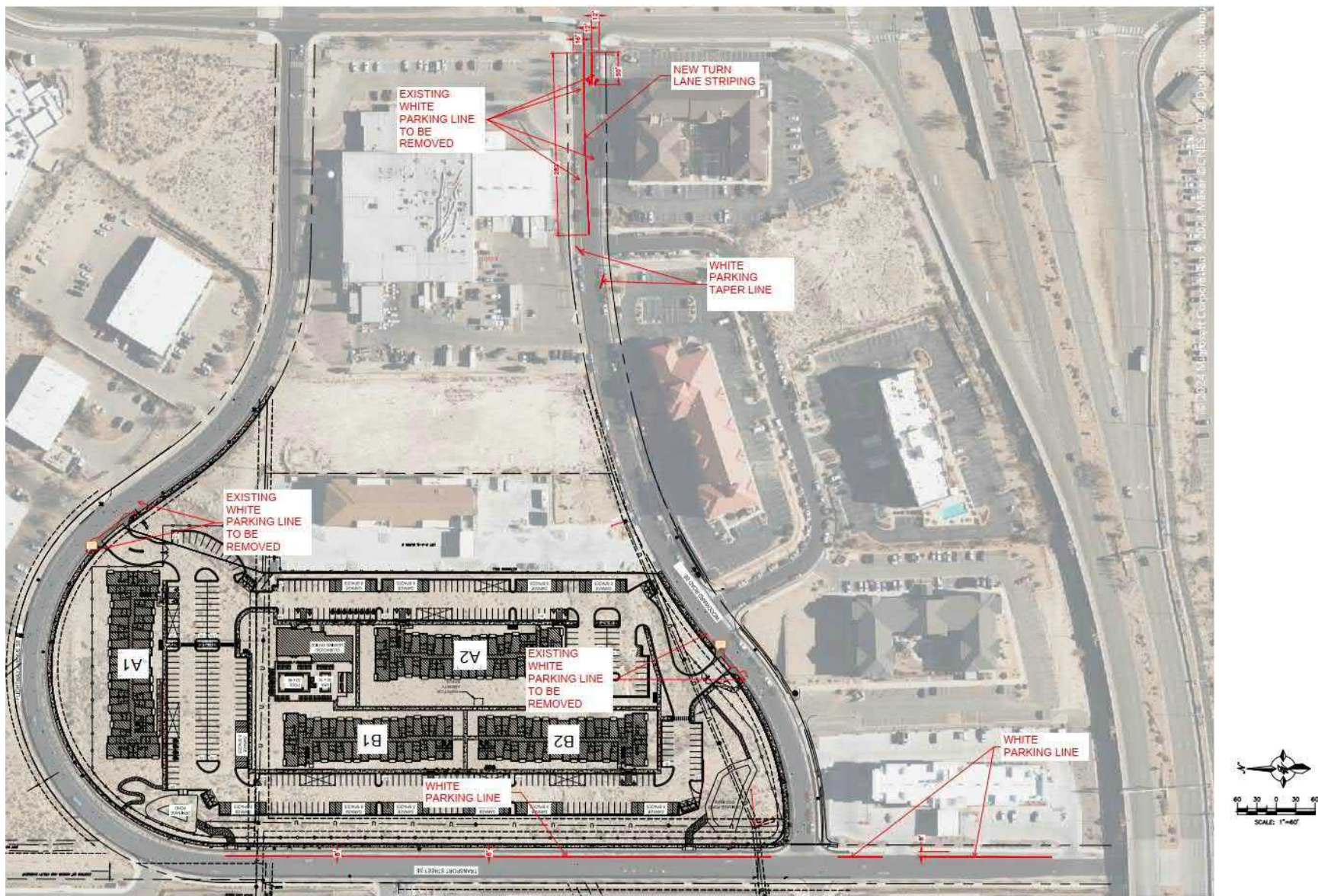


Figure 17: Proposed Striping and Intersection Mitigation

## *Recommendations*

Based on the LOS increase generated by the volume growth estimated during the implementation and horizon years it is recommended to perform a peak-hour warrant study for the unsignalized intersections of Woodward Rd. at University Blvd. Performing a peak hour signal warrant analysis would provide indications of whether the forecast volume would meet the warrant requirements. However, it should be noted that an intersection that meets the warrant requirements does not mandate installation of a traffic signal.

The intersection of Woodward Rd. at University Blvd. meets the Warrant 3 (Peak Hour) requirements. However, due to the proximity to the signalized intersection of Sunport Blvd. at University Blvd. a new signal is not recommended. Peak hour signal warrant spreadsheet is available in the Appendix 13. To mitigate the delays, it is recommended to remove existing on street parking along both the north and south sides of Woodward Rd. from the stop bar to 265 ft west, then add an eastbound left-turn lane. The striping and lane configuration is available in Appendix 13.

New on-street parking striping is recommended along the east side of Transport St. This will create an opportunity for additional parking for surrounding commercial lodging and residential housing. All new construction associated with this project shall maintain adequate sight distances at driveways and intersections.

This project can be accessed with the two proposed driveways shown on the site plan. Both driveways can be constructed with one entering lane and one existing lane.



## ***Bibliography***

DEVELOPMENT PROCESS MANUAL DEVELOPMENT PROCESS MANUAL. (2020, June 08). Albuquerque, New Mexico, USA. Retrieved 2024

Google. (2024, April 17). *Opus Transport Apartments Blvd. Vicinity Map*. Retrieved from Google Earth:  
<https://earth.google.com/web/@35.05628335,-106.72374373,1551.33535309a,1224.20491926d,35y,-4.67703481h,3.54318425t,0.37739996r>

Institute of Traffic Engineer's. (n.d.). *Trip Generation Rates* (11th ed.). USA. Retrieved April 17, 2024, from <https://www.itetripgen.org/>

MRMPO Long Range Roadway System (LRRS). (2024, 04 23). Retrieved from Mid-Region Council of Governments:  
<https://mrmpo.maps.arcgis.com/apps/webappviewer/index.html?id=9d3876c8b09f4e22aacd3e900892c381>

Tierra West LLC. (2024, April 17). Intersection Reference Map. *Opus Transport Apartments TIS*. Albuquerque, New Mexico, USA: NMDOT.



## *Appendices*



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<i>Woodward Rd. at Transport St. (Unsignalized)</i>	A-08.55 thru 08.56
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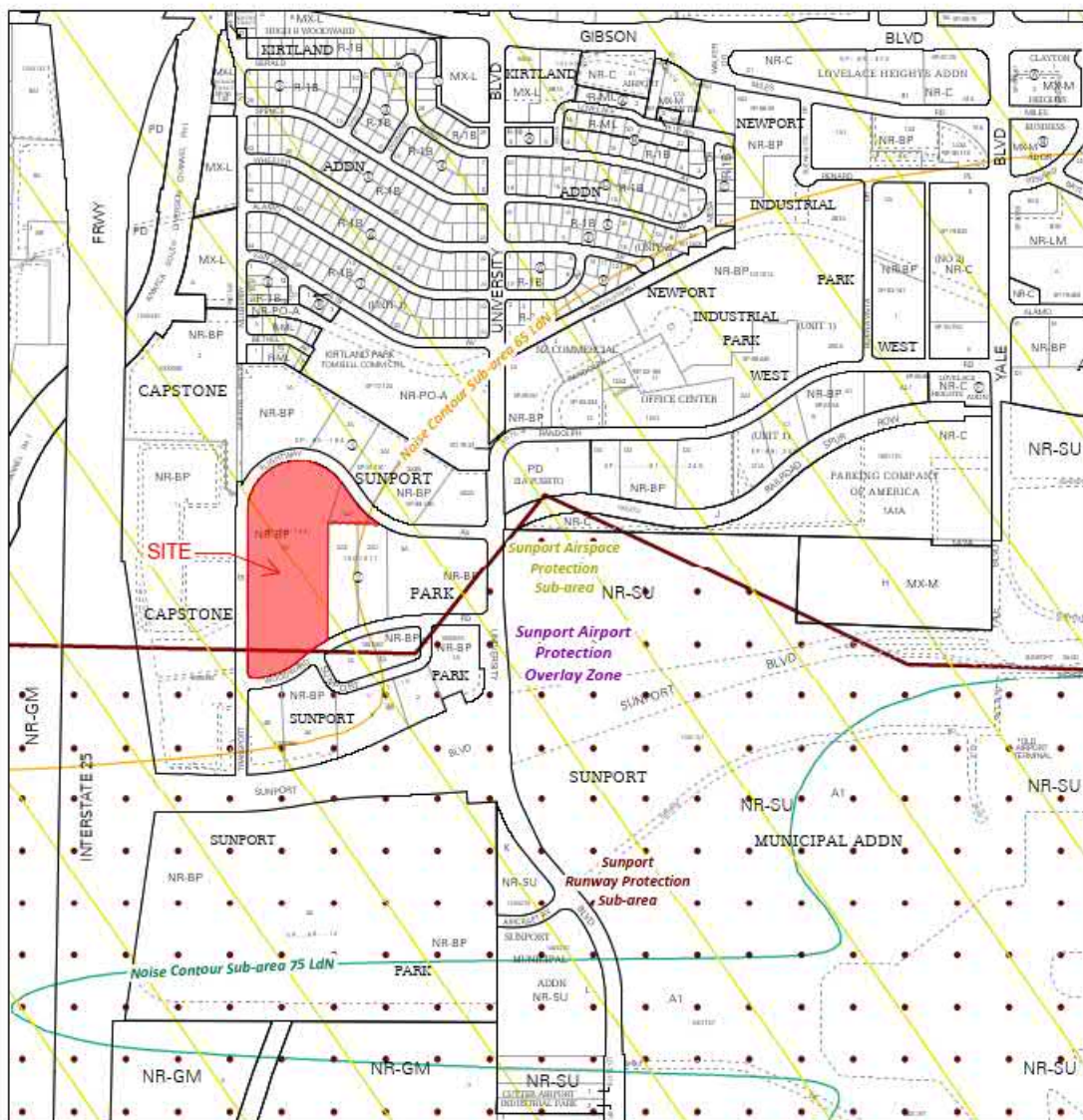


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<i>Woodward Rd. at University Blvd. (Unsignalized)</i>	A-10.81-10.84
<i>Woodward Rd. at Transport St. (Unsignalized)</i>	A-10.85-10.88
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## Appendix 01





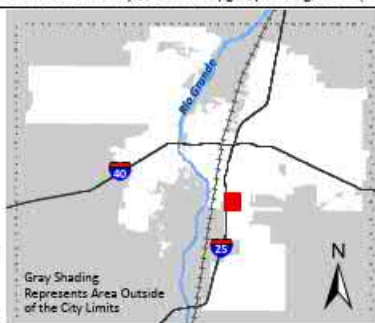
For more details about the Integrated Development Ordinance visit: <http://www.cabq.gov/planning/codes-policies-regulations/integrated-development-ordinance>

# **IDO Zone Atlas** **May 2018**



IDO Zoning information as of May 17, 2018

The Zone Districts and Overlay Zones are established by the Integrated Development Ordinance (IDO).



Gray Shading Represents Area Outside of the City Limits

Zone Atlas Page:  
**M-15-Z**

- Easement
- Escarpment
- Petroglyph National Monument
- Areas Outside of City Limits
- Airport Protection Overlay (APO) Zone
- Character Protection Overlay (CPO) Zone
- Historic Protection Overlay (HPO) Zone
- View Protection Overlay (VPO) Zone

0 250 500 1,000 Feet

# LONG RANGE ROADWAY SYSTEM (LRRS)

Published April 2020.



## LRRS Key

### Roadway Function

- Interstate
- Regional Principal Arterial
- Community Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector

### Future Roadways

- Potential Future Route
- Proposed Regional Arterial
- Proposed Community Arterial
- Proposed Minor Arterial
- Proposed Major Collector
- Proposed Minor Collector

### Interchanges

- + Proposed Interchange
- + Proposed Grade-Separated Crossing
- + Proposed Interchange Beyond 2040

The **Long Range Roadway System (LRRS)** describes both existing and future (proposed) roadways in the Albuquerque Metropolitan Planning Area (AMPA). Roadways are classified by their character and their role in regional connectivity. This is in contrast to Functional Classification, which reflects current function and determines eligibility for federal funding.

Proposed facilities include projects beyond the 2040 timeframe. These roadways are included to help identify future need and important regional connections. This system should be viewed as an aspirational network.

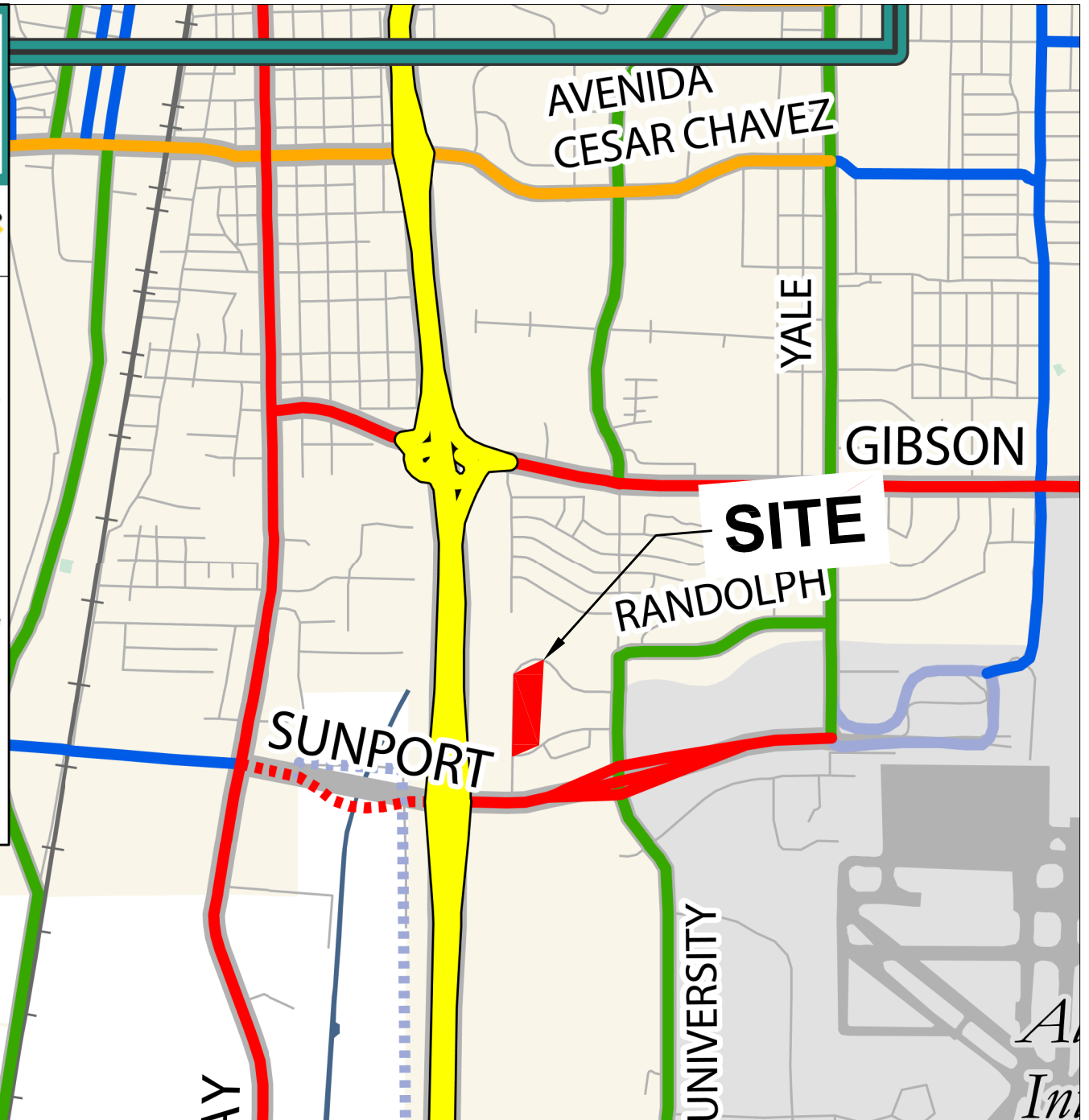
**Regional Principal Arterial** roadways prioritize passenger vehicles and freight and are primarily for traveling longer distances across the region, so they are often located at the edges of activity centers.

**Community Principal Arterial** roadways may provide direct access to activity centers and strive to achieve a balance of modes of travel.

**Minor Arterial** roadways provide the connectivity of principal arterials, but prioritize slower moving traffic.

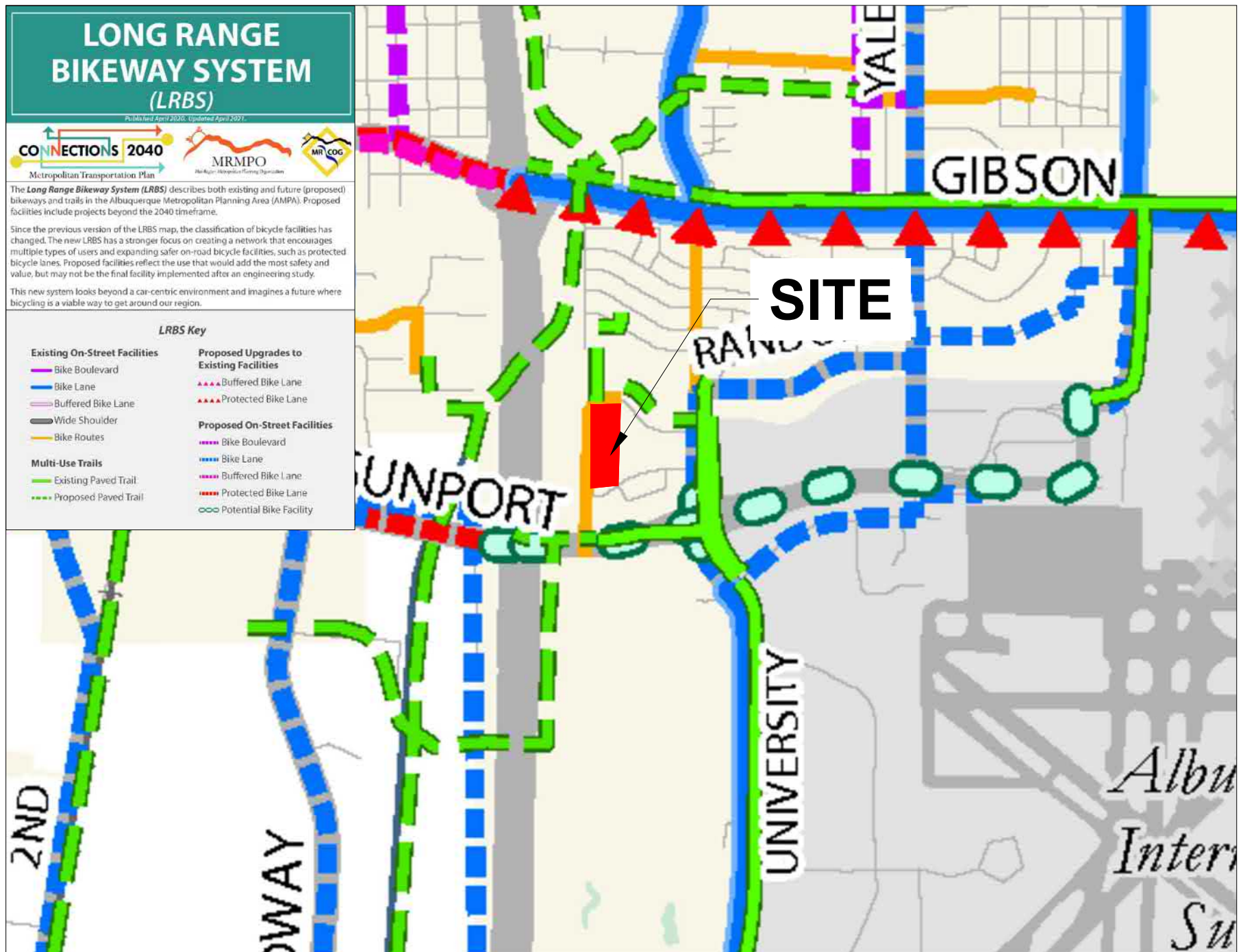
**Major Collector** roadways connect arterials and neighborhoods. They support short car trips while prioritizing bicyclists and pedestrians.

**Minor Collector** roadways provide additional connectivity between arterials and neighborhoods.



Portion of Futures 2040 Long Range Roadway System  
(from Mid-Region Council of Governments)





**Portion of Futures 2040 Long Range Bikeway System  
(from Mid-Region Council of Governments)**

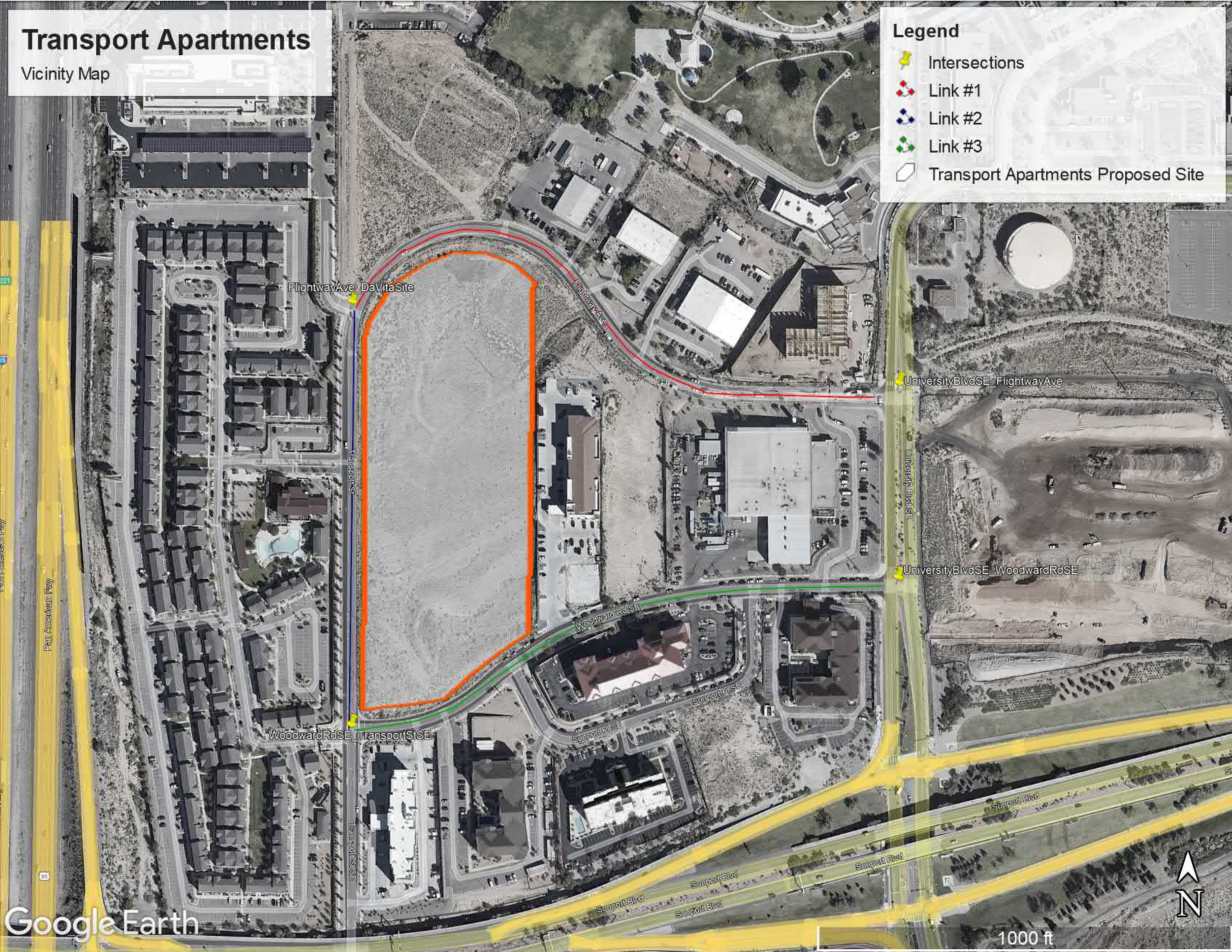


# Transport Apartments

Vicinity Map

## Legend

- Intersections
- Link #1
- Link #2
- Link #3
- Transport Apartments Proposed Site





## Appendix 02



## SCOPE OF TRAFFIC IMPACT STUDY (TIS)

**TO:** Terry Brown  
Terry O. Brown, P.E.  
P. O. Box 92051  
Albuquerque, NM 87199-2051

**MEETING DATE:** Thursday, March 28, 2024 at 9:00 am.

**ATTENDEES:** Matthew Grush (City of Albuquerque); Ron Bohannon, Derek Bohannon, Jon Niski, Vinny Perea, Jimeia Roberts, and Terry Brown (Tierra West LLC).

**PROJECT:** Transport Apartments (2900 Transport St. SE)

**REQUESTED CITY ACTION:** ☐ Zone Change ☒ Site Development Plan

☐ Subdivision ☒ Building Permit ☐ Sector Plan ☐ Sector Plan Amendment

☐ Curb Cut Permit ☐ Conditional Use ☐ Annexation ☐ Site Plan Amendment

**ASSOCIATED APPLICATION:** Description of development, where, what, etc. Include acreage, uses, etc. Proposed 254 unit apartment complex (a mix of low-rise and high-rise apartments).

### SCOPE OF REPORT:

The Traffic Impact Study should follow the standard report format, which is outlined in the DPM. The following supplemental information is provided for the preparation of this specific study.

1. Trip Generation - Use Trip Generation Manual, 11th Edition.  
Local data may be used for certain land use types as determined by staff.  
Consultant to provide.

2. Appropriate study area:  
Signalized Intersections;  
a. None

Unsignalized Intersections;

- a. Woodward Rd. SE / University Blvd. SE
- b. Flightway Ave. SE / University Blvd. SE
- c. Woodward Rd. SE / Transport St. SE
- d. Flightway Ave. (Transport St.) / Private driveway to DaVita site.

Driveway Intersections: all site drives. (2)

3. Intersection turning movement counts  
Study Time – 7-9 a.m. peak hour, 4-6 p.m. peak hour  
Consultant to provide for all intersections listed above.
4. Type of intersection progression and factors to be used.  
Type III arrival type (see “Highway Capacity Manual, current edition” or equivalent as approved by staff). Unless otherwise justified, peak hour factors and % heavy commercial should be taken directly from the MRCOG turning movement data provided or as calculated from current count data by consultant.
5. Boundaries of area to be used for trip distribution.

City Wide - residential, office or industrial;  
 2-mile radius – commercial; (consultant to proposed preliminary trip  
 distribution criteria for approval by City of Albuquerque.  
 Interstate or to be determined by consultant - motel/hotel  
 APS district boundary mapping for each school and bus routes

6. Basis for trip distribution.

Residential – Use inverse relationship based upon distance and employment. Use employment data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Office/Industrial - Use inverse relationship based upon distance and population. Use population data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Commercial - Use relationship based upon population. Use population data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Residential -  $T_s = (T_t) (S_e / D) / (S_e / D)$   
 $T_s$  = Development to Individual Subarea Trips  
 $T_t$  = Total Trips  
 $S_e$  = Subarea Employment  
 $D$  = Distance from Development to Subarea

Office/Industrial -  $T_s = (T_t) (S_p / D) / (S_p / D)$   
 $T_s$  = Development to Individual Subarea Trips  
 $T_t$  = Total Trips  
 $S_p$  = Subarea Population  
 $D$  = Distance from Development to Subarea

Commercial -  
 $T_s = (T_t) (S_p) / (S_p)$   
 $T_s$  = Development to Individual Subarea Trips  
 $T_t$  = Total Trips  
 $S_p$  = Subarea Population

7. Traffic Assignment. Logical routing on the major street system.

8. Proposed developments which have been approved but not constructed that are to be Included in the analyses. Projects in the area include:

- None.

9. Method of intersection capacity analysis - planning or operational (see “2016 Highway Capacity Manual” or equivalent [i.e. HCS, Synchro, Teapac, etc.] as approved by staff). Must use latest version of design software and/or current edition of design manual.

Implementation Year: 2025

Horizon Year: 2035

10. Traffic conditions for analysis:

- a. Existing analysis \_\_\_ yes X no - year (xxxx);
- b. Phase implementation year(s) without proposed development – 2025
- c. Phase implementation year(s) with proposed development – 2025
- d. Project horizon year without proposed development – 2035

- e. Project horizon year with proposed development – 2035
  - f. Other –
11. Background traffic growth.  
Method: use 10-year historical growth based on standard data from the MRCOG Traffic Flow Maps. Minimum growth rate to be used is 1/2%.
12. Planned (programmed) traffic improvements.  
List planned CIP improvements in study area and projected project implementation year:  
a. Project – Location (Implementation Year)
13. Items to be included in the study:
- a. Intersection analysis.
  - b. Signal progression - An analysis is required if the driveway analysis indicates a traffic signal is possibly warranted. Analysis Method:
  - c. Arterial LOS analysis;
  - d. Recommended street, intersection and signal improvements.
  - e. Site design features such as turning lanes, median cuts, queuing requirements and site circulation, including driveway signalization and visibility.
  - f. Transportation system impacts.
  - g. Other mitigating measures.
  - h. Accident analyses ☐ yes ☒ no; Location(s): 5 year history (2015-2019)
  - i. Weaving analyses ☐ yes ☒ no; Location(s):
14. Other:

**SUBMITTAL REQUIREMENTS:**

- 1. Number of copies of report required
  - a. 1 digital copy
- 2. Submittal Fee – \$1300 for up to 3 reviews

The Traffic Impact Study for this development proposal, project name, shall be performed in accordance with the above criteria. If there are any questions regarding the above items, please contact me at 924-3362.

 P.E.

3/28/2024

\_\_\_\_\_  
Matt Grush, P.E.  
Senior Engineer  
City of Albuquerque, Planning  
Transportation Development Section

\_\_\_\_\_  
Date

via: email  
C: TIS Task Force Attendees, file





# City of Albuquerque

Planning Department  
Development Review Services Division

## Traffic Scoping Form (REV 12/2020)

**Project Title:** Transport Apartments **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** M15D023H  
**Zone Atlas Page:** M-15 **DRB#:** PR-2021-005459 **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_  
**Legal Description:** Lots 1-A and 2-A-1 Block 2 Sunport Park  
**City Address:** 2900 Transport St SE  
**Applicant:** Tierra West, LLC **Contact:** Vinny Perea  
**Address:** 5571 Midway Park PI NE  
**Phone#:** 505-858-3100 **Fax#:** \_\_\_\_\_ **E-mail:** vperea@tierrawestllc.com

### Development Information

**Build out/Implementation Year:** 2025 **Current/Proposed Zoning:** NR-BP  
**Project Type:** New: (x) Change of Use: ( ) Same Use/Unchanged: ( ) Same Use/Increased Activity: ( )  
**Proposed Use (mark all that apply):** Residential: (x) Office: ( ) Retail: ( ) Mixed-Use: ( )  
**Describe development and Uses:**  
New Development of a 254-unit multi-family apartment complex  
\_\_\_\_\_  
\_\_\_\_\_  
**Days and Hours of Operation (if known):** \_\_\_\_\_

### Facility

**Building Size (sq. ft.):** 281,087 SF (total gross floor area)  
**Number of Residential Units:** 254  
**Number of Commercial Units:** \_\_\_\_\_

### Traffic Considerations

**Expected Number of Daily Visitors/Patrons (if known):\*** \_\_\_\_\_  
**Expected Number of Employees (if known):\*** \_\_\_\_\_  
**Expected Number of Delivery Trucks/Buses per Day (if known):\*** \_\_\_\_\_  
**Trip Generations during PM/AM Peak Hour (if known):\*** AM: 22 Enter, 72 Exit (94 Total)  
PM: 60 Enter, 39 Exit (99 Total)  
**Driveway(s) Located on:** Street Name Woodward Rd and Flightway Ave

ITE Land Use # 220  
Multifamily Housing  
(Low-Rise) Not Close  
to Rail Transit  
254 units  
AM peak 102 trips  
PM peak 130 trips

**Adjacent Roadway(s) Posted Speed:** Street Name Transport St **Posted Speed** 30 mph  
Street Name Flightway Ave **Posted Speed** 30 mph  
Woodward Rd **Posted Speed** 30 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: Transport, Flightway, and Woodward are considered "Local"  
(arterial, collector, local, main street)

Comprehensive Plan Center Designation: N/A  
(urban center, employment center, activity center)

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

Adjacent Roadway(s) Traffic Volume: Not available through MRCOG Volume-to-Capacity Ratio: Not available through MRCOG  
(if applicable)

Adjacent Transit Service(s): Bus Route 222 on University Blvd Nearest Transit Stop(s): on Randolph Rd, west of Buena Vista Dr 2800' from site as the crow flies

Is site within 660 feet of Premium Transit?: No

Current/Proposed Bicycle Infrastructure: Flightway Ave - San Jose Lateral Trail (proposed) - paved trail  
(bike lanes, trails) Transport St - Sunport Interchange Con SE (existing) - cars & bicycles share the street

Current/Proposed Sidewalk Infrastructure: Proposed 6' sidewalk along entire frontage of site

## 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:

 P.E.

3/27/2024

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 03





Units	Units	Beds	RSF Per Unit	Total Area (SF)	Monthly Rent Per Unit	Monthly Rent per RSF	Monthly Rent	Annual Rent	
	Must = Phasing below								
Studio	2510%	25	505	12,827	\$ 1,400	\$ 2.77	\$ 35,560	\$426,720	
1 Bedroom / 1 Bath	11746%	117	725	84,709	\$ 1,600	\$ 2.21	\$ 186,944	\$2,243,328	\$ 1
2 Bed / 2 Bath	9939%	198	1,025	101,537	\$ 2,100	\$ 2.05	\$ 208,026	\$2,496,312	\$ 1
3 Bedroom / 2 Bath	135%	38	1,200	15,240	\$ 2,400	\$ 2.00	\$ 30,480	\$365,760	
Totals (average)	254100%	378	844	214,313	\$1,815	\$2.15	\$ 461,010	\$5,532,120	
					YOC at Stabilization:		6.30%		
			RSF Goal	214,313	87.0%	Residential Floor Efficiency			

STUDIO	20 UNITS	8%
1 BED / 1 BATH	122 UNITS	48%
2 BED / 2 BATH	98 UNITS	39%
3 BED / 2 BATH	14 UNITS	6%

54 UNITS

44 UNITS

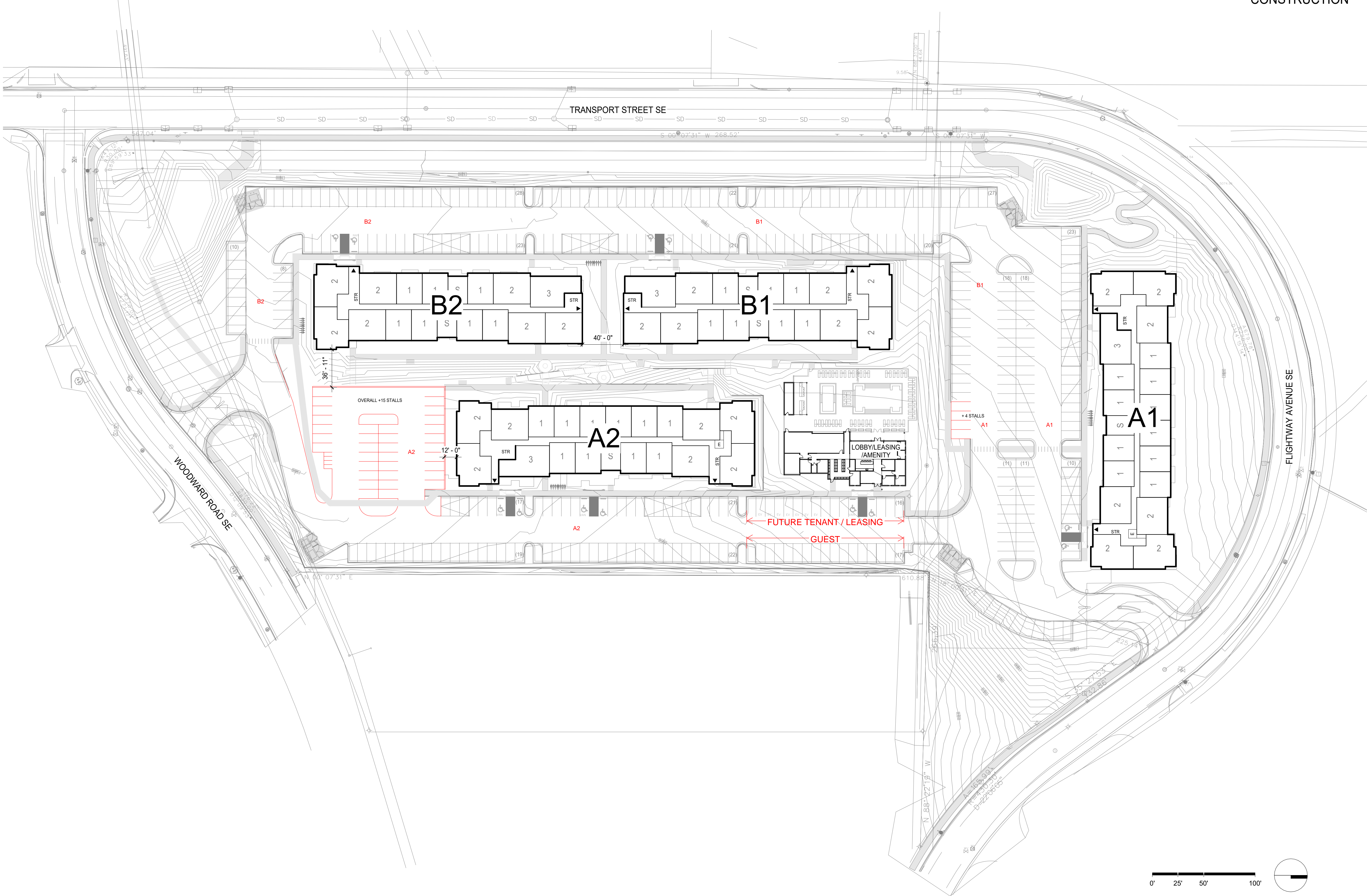
2

2

ADDITION OF 19 PARKING STALLS = 419 STALLS = 1.65 STALLS/UNIT

BUILDING A1 and A2		
STORY SF	+/- 20,270	GSF
STORIES	4	STORIES
TOTAL SF	+/- 81,080	GSF
UNITS PER STORY	19	UNITS
TOTAL UNITS	76	UNITS
CONSTRUCTION	TYPE IIIB	

BUILDING B1 and B2		
STORY SF	+/- 17,728	GSF
STORIES	3	STORIES
TOTAL SF	+/- 53,184	GSF
UNITS PER STORY	17	UNITS
TOTAL UNITS	51	UNITS
CONSTRUCTION	TYPE VB	



DESIGN ARCHITECT

PROJECT

**TRANSPORT MF**

PROJECT ADDRESS

Albuquerque, NM

PROJECT NUMBER

32176000

ISSUE RECORD

DATE

05/31/2024

PROJECT MANAGER

RC

DRAWN BY

TG

CHECKED BY

DN

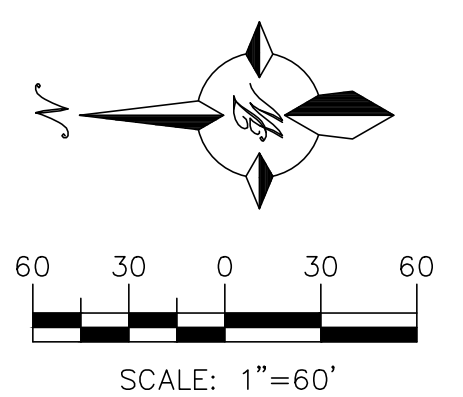
REGISTRATION

SHEET TITLE

Conceptual Architectural  
Site Plan

SHEET NUMBER







## Appendix 04



*Transport Apartments (2900 Transport St)*  
**Trip Generation Data (ITE Trip Generation Manual - 11th Edition)**

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		GROSS	ENTER	EXIT	ENTER	EXIT
<b><u>Summary Sheet</u></b>	Units					
Multifamily Housing (Mid-Rise)	164.00	745	14	47	39	25
Multifamily Housing (Low-Rise)	90.00	607	9	27	37	22
Single Tenant Office Building (715)	5.14	67	8	1	1	8
<b>Subtotal</b>		<b>1,419</b>	<b>31</b>	<b>75</b>	<b>77</b>	<b>55</b>

# Land Use: 221

## Multifamily Housing (Mid-Rise)

---

### Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

### Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

### Additional Data

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

***It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).***

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

### Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076

*Transport Apartments (2900 Transport St)*  
*Trip Generation Data (ITE Trip Generation Manual - 11th Edition)*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
	GROSS	ENTER	EXIT	ENTER	EXIT
<b>Multifamily Housing (Mid-Rise)</b>					
	Units <b>164.00</b>				
	Dwelling Units				
	745	14	47	39	25

**ITE Trip Generation Equations:**

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

$$T = 4.54 (X) + 0$$

50% Enter, 50% Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

$$T = 0.44 (X) + -11.61$$

23% Enter, 77% Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

$$T = 0.39 (X) + 0$$

61% Enter, 39% Exit

Comments:

Tract No.

Based on ITE Trip Generation Manual - 11th Edition



# Land Use: 220

## Multifamily Housing (Low-Rise)

---

### Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels). Various configurations fit this description, including walkup apartment, mansion apartment, and stacked townhouse.

- A walkup apartment typically is two or three floors in height with dwelling units that are accessed by a single or multiple entrances with stairways and hallways.
- A mansion apartment is a single structure that contains several apartments within what appears to be a single-family dwelling unit.
- A fourplex is a single two-story structure with two matching dwelling units on the ground and second floors. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.
- A stacked townhouse is designed to match the external appearance of a townhouse. But, unlike a townhouse dwelling unit that only shares walls with an adjoining unit, the stacked townhouse units share both floors and walls. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.

Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), affordable housing (Land Use 223), and off-campus student apartment (low-rise) (Land Use 225) are related land uses.

### Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

### Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip

generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

***It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).***

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in British Columbia (CAN), California, Delaware, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, and Washington.

### **Source Numbers**

188, 204, 237, 300, 305, 306, 320, 321, 357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076

*Transport Apartments (2900 Transport St)*  
*Trip Generation Data (ITE Trip Generation Manual - 11th Edition)*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR		
	GROSS	ENTER	EXIT	ENTER	EXIT	
<b>Multifamily Housing (Low-Rise)</b>	Units <b>90.00</b>	607	9	27	37	22
	Dwelling Units					

**ITE Trip Generation Equations:**

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

$$T = \begin{matrix} 6.74 \\ 50\% \end{matrix} (X) + \begin{matrix} 0 \\ 50\% \end{matrix} \begin{matrix} \text{Enter,} \\ \text{Exit} \end{matrix}$$

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

$$T = \begin{matrix} 0.4 \\ 24\% \end{matrix} (X) + \begin{matrix} 0 \\ 76\% \end{matrix} \begin{matrix} \text{Enter,} \\ \text{Exit} \end{matrix}$$

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

$$T = \begin{matrix} 0.43 \\ 63\% \end{matrix} (X) + \begin{matrix} 20.55 \\ 37\% \end{matrix} \begin{matrix} \text{Enter,} \\ \text{Exit} \end{matrix}$$

Comments:

Tract No.

Based on ITE Trip Generation Manual - 11th Edition

# Land Use: 221

## Multifamily Housing (Mid-Rise)

---

### Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

### Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

### Additional Data

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

***It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).***

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

### Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076



*Transport Apartments (2900 Transport St)*  
*Trip Generation Data (ITE Trip Generation Manual - 11th Edition)*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
	GROSS	ENTER	EXIT	ENTER	EXIT
<b>Single Tenant Office Building (715)</b>	Units <b>5.14</b> 1,000 S.F.	67	8	1	1
		8	1	1	8

**ITE Trip Generation Equations:**

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

$$T = \frac{13.07}{50\%} (X) + \frac{0}{50\%} \text{ Exit}$$

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

$$T = \frac{1.85}{89\%} (X) + \frac{0}{11\%} \text{ Exit}$$

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

$$T = \frac{1.76}{15\%} (X) + \frac{0}{85\%} \text{ Exit}$$

Comments:

Tract No.

Based on ITE Trip Generation Manual - 11th Edition

Scenario - 1

Scenario Name: Daily

User Group:

Dev. phase: 1

No. of Years to Project 0

Analyst Note:

Traffic :

Warning: The settings/location among the land uses do not appear to match.

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	General Urban/Suburban	Dwelling Units	90	Weekday	Average	303	303	606
Data Source: Trip Generation Manual, 11th Ed					6.74	50%	50%	
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Dense Multi-Use Urban	Dwelling Units	164	Weekday	Average	240	240	480
Data Source: Trip Generation Manual, 11th Ed					2.93	50%	50%	
715 - Single Tenant Office Building	General Urban/Suburban	1000 Sq. Ft. GFA	5.14	Weekday	Average	34	34	68
Data Source: Trip Generation Manual, 11th Ed					13.07	50%	50%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	50	50
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	100	100	1	1	50	50
715 - Single Tenant Office Building	100	100	1.1	1.1	50	50

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	303	303	0	0	303	303
	606		0		606	
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	240	240	0	0	240	240
	480		0		480	
715 - Single Tenant Office Building	37	37	0	0	37	37
	74		0		74	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	Residential
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Residential
715 - Single Tenant Office Building	Office

INTERNAL VEHICLE TRIPS AND CAPTURE:

220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-

<b>Total Vehicle Internal Trips</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total External Vehicle Trips	303	303	606
<b>Internal Vehicle Trip Capture</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

**221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit**

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total External Vehicle Trips	240	240	480
<b>Internal Vehicle Trip Capture</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

**715 - Single Tenant Office Building**

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total External Vehicle Trips	34	34	68
<b>Internal Vehicle Trip Capture</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

**PASS-BY VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	303	303	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	240	240	0.00%	0.00%	0	0
715 - Single Tenant Office Building	34	34	0.00%	0.00%	0	0

**DIVERTED VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	303	303	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	240	240	0.00%	0.00%	0	0
715 - Single Tenant Office Building	34	34	0.00%	0.00%	0	0

**EXTRA VEHICLE TRIP REDUCTION**

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	303	303	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	240	240	0.00%	0.00%	0	0
715 - Single Tenant Office Building	34	34	0.00%	0.00%	0	0

**NEW VEHICLE TRIPS**

Land Use	New Vehicle Trips		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	303	303	606
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	240	240	480
715 - Single Tenant Office Building	34	34	68

**RESULTS**

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	577	577	1154
Internal Vehicle Trips	0	0	0
External Vehicle Trips	577	577	1154
Internal Vehicle Trip Capture	0%	0%	0%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	577	577	1154



Scenario - 1

Scenario Name: Daily

User Group:

Dev. phase: 1

No. of Years to Project 0

Analyst Note:

Traffic :

Warning: The time periods and settings/location among the land uses do not appear to match.

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	General Urban/Suburban	Dwelling Units	90	Weekday, Peak Hour of Adjacent Street Traffic,	Average	9	27	36
Data Source: Trip Generation Manual, 11th Ed					0.40	24%	76%	
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Dense Multi-Use Urban	Dwelling Units	164	Weekday, Peak Hour of Adjacent Street Traffic,	Average	6	39	45
Data Source: Trip Generation Manual, 11th Ed					0.28	14%	86%	
715 - Single Tenant Office Building	General Urban/Suburban	1000 Sq. Ft. GFA	5.14	Weekday, Peak Hour of Adjacent Street Traffic,	Average	1	8	9
Data Source: Trip Generation Manual, 11th Ed					1.76	15%	85%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	24	76
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	100	100	1	1	14	86
715 - Single Tenant Office Building	100	100	1.1	1.1	15	85

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	27	0	0	9	27
	36		0		36	
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	6	39	0	0	6	39
	45		0		45	
715 - Single Tenant Office Building	1	8	0	0	1	8
	9		0		9	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	Residential
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Residential
715 - Single Tenant Office Building	Office

INTERNAL VEHICLE TRIPS AND CAPTURE:

220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-

<b>Total Vehicle Internal Trips</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total External Vehicle Trips	9	27	36
<b>Internal Vehicle Trip Capture</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

**221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit**

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total External Vehicle Trips	6	39	45
<b>Internal Vehicle Trip Capture</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

**715 - Single Tenant Office Building**

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1	1	-
<b>Total Vehicle Internal Trips</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total External Vehicle Trips	1	8	9
<b>Internal Vehicle Trip Capture</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

**PASS-BY VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	27	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	6	39	0.00%	0.00%	0	0
715 - Single Tenant Office Building	1	8	0.00%	0.00%	0	0

**DIVERTED VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	27	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	6	39	0.00%	0.00%	0	0
715 - Single Tenant Office Building	1	8	0.00%	0.00%	0	0

**EXTRA VEHICLE TRIP REDUCTION**

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	27	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	6	39	0.00%	0.00%	0	0
715 - Single Tenant Office Building	1	8	0.00%	0.00%	0	0

**NEW VEHICLE TRIPS**

Land Use	New Vehicle Trips		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	27	36
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	6	39	45
715 - Single Tenant Office Building	1	8	9

**RESULTS**

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	16	74	90
Internal Vehicle Trips	0	0	0
External Vehicle Trips	16	74	90
Internal Vehicle Trip Capture	0%	0%	0%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	16	74	90

Scenario - 1

Scenario Name: Daily

User Group:

Dev. phase: 1

No. of Years to Project 0

Analyst Note:

Traffic :

Warning: The settings/location among the land uses do not appear to match.

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	General Urban/Suburban	Dwelling Units	90	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	37	22	59
Data Source: Trip Generation Manual, 11th Ed					T = 0.43(X) + 20.55	63%	37%	
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Dense Multi-Use Urban	Dwelling Units	164	Weekday, Peak Hour of Adjacent Street Traffic,	Average	32	11	43
Data Source: Trip Generation Manual, 11th Ed					0.26	74%	26%	
715 - Single Tenant Office Building	General Urban/Suburban	1000 Sq. Ft. GFA	5.14	Weekday, Peak Hour of Adjacent Street Traffic,	Average	1	8	9
Data Source: Trip Generation Manual, 11th Ed					1.76	15%	85%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	63	37
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	100	100	1	1	74	26
715 - Single Tenant Office Building	100	100	1.1	1.1	15	85

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	37	22	0	0	37	22
	59		0		59	
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	32	11	0	0	32	11
	43		0		43	
715 - Single Tenant Office Building	1	8	0	0	1	8
	9		0		9	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	Residential
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Residential
715 - Single Tenant Office Building	Office

BALANCED PERSON TRIPS:

220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit					221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit				
Persons Exit	PAF	UIPTC	Unconstrained Demand	====> BALANCED ==>==	Unconstrained Demand	UIPTC	PAF	Persons Entry	
22	1	0	0	0	0	0	1	32	
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<== BALANCED <<==	Unconstrained Demand	UIPTC	PAF	Persons Exit	
37	1	0	0	0	0	0	1	11	



220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit					715 - Single Tenant Office Building				
Persons Exit	PAF	UIPTC	Unconstrained Demand	====> BALANCED ==>==	Unconstrained Demand	UIPTC	PAF	Persons Entry	
22	1	2	0	0	0	28.5	1	1	
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit	
37	1	2	1	0	0	1	1	8	
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit					715 - Single Tenant Office Building				
Persons Exit	PAF	UIPTC	Unconstrained Demand	====> BALANCED ==>==	Unconstrained Demand	UIPTC	PAF	Persons Entry	
11	1	2	0	0	0	28.5	1	1	
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit	
32	1	2	1	0	0	1	1	8	

**INTERNAL VEHICLE TRIPS AND CAPTURE:****220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit**

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1	1	-
<b>Total Vehicle Internal Trips</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total External Vehicle Trips	37	22	59
<b>Internal Vehicle Trip Capture</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

**221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit**

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1	1	-
<b>Total Vehicle Internal Trips</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total External Vehicle Trips	32	11	43
<b>Internal Vehicle Trip Capture</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

**715 - Single Tenant Office Building**

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1	1	-
<b>Total Vehicle Internal Trips</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total External Vehicle Trips	1	8	9
<b>Internal Vehicle Trip Capture</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

**PASS-BY VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	37	22	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	32	11	0.00%	0.00%	0	0
715 - Single Tenant Office Building	1	8	0.00%	0.00%	0	0

**DIVERTED VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	37	22	0.00%	0.00%	0	0

221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	32	11	0.00%	0.00%	0	0
715 - Single Tenant Office Building	1	8	0.00%	0.00%	0	0

## EXTRA VEHICLE TRIP REDUCTION

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	37	22	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	32	11	0.00%	0.00%	0	0
715 - Single Tenant Office Building	1	8	0.00%	0.00%	0	0

## NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	37	22	59
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	32	11	43
715 - Single Tenant Office Building	1	8	9

## RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	70	41	111
Internal Vehicle Trips	0	0	0
External Vehicle Trips	70	41	111
Internal Vehicle Trip Capture	0%	0%	0%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	70	41	111

## Appendix 05



# CAM1-University Blvd and Flightway Ave - AM

0 0

Tuesday, April 9, 2024

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:30 AM	0	0	58	7	0	65	0	0	0	0	0	0	0	10	114	0	0	124	0	7	0	2	0	9	198
7:45 AM	0	0	90	10	0	100	0	0	0	0	0	0	0	8	151	0	0	159	0	6	0	4	2	10	269
8:00 AM	0	0	81	5	0	86	0	0	0	0	0	0	0	9	148	0	0	157	0	4	0	8	0	12	255
8:15 AM	0	0	70	4	0	74	0	0	0	0	0	0	0	10	87	0	0	97	0	7	0	4	1	11	182
Peak Hour Total	0	0	299	26	0	325	0	0	0	0	0	0	0	37	500	0	0	537	0	24	0	18	3	42	904
PHF	0.000	0.000	0.831	0.650	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.925	0.828	0.000	0.000	0.844	0.000	0.857	0.000	0.563	0.375	0.875	0.840

Total Vehicles On Leg			1417		
Vehicles Entering Intersection 514			Vehicles Exiting Intersection 903		
Southbound					
Cars	38	461	0	0	0
Heavy	2	13	0	0	0
Total	40	474	0	0	0



Total Vehicles on Leg 199	Vehicles Entering Intersection 85	Eastbound	Cars	Heavy	Total	
	3		3	1	4	
	0		0	0	0	
	49		49	1	50	
	0		0	0	0	
	Vehicles Exiting Intersection 114		30	5	35	



Daily Volumes



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 0	Total Vehicles on Leg 0
0	0	0		0	
0	0	0		0	
0	0	0		0	
0	0	0		0	
0	0	0		Vehicles Exiting Intersection 0	



Cars	0	1	70	841	0
Heavy	0	0	4	12	0
Total	0	1	74	853	0
Northbound					
Vehicles Entering Intersection 928			Vehicles Exiting Intersection 510		
Total Vehicles On Leg			1438		



# CAM1-University Blvd and Flightway Ave - PM

0 0

Tuesday, April 9, 2024

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:15 PM	0	0	108	12	0	120	0	0	0	0	0	0	1	4	80	0	0	85	0	6	0	7	2	13	218
4:30 PM	0	0	140	9	0	149	0	0	0	0	0	0	0	2	84	0	0	86	0	12	0	8	0	20	255
4:45 PM	0	0	119	8	0	127	0	0	0	0	0	0	0	6	81	0	0	87	0	6	0	5	0	11	225
5:00 PM	0	0	124	13	0	137	0	0	0	0	0	0	1	6	87	0	0	94	0	8	0	8	1	16	247
Peak Hour Total PHF	0	0	491	42	0	533	0	0	0	0	0	0	2	18	332	0	0	352	0	32	0	28	3	60	945
	0.000	0.000	0.877	0.808	0.000	0.894	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.750	0.954	0.000	0.000	0.936	0.000	0.667	0.000	0.875	0.375	0.750	0.926

Total Vehicles On Leg			1614		
Vehicles Entering Intersection 927			Vehicles Exiting Intersection 687		
Southbound					
Cars	70	848	0	0	0
Heavy	4	5	0	0	0
Total	74	853	0	0	0



Total Vehicles on Leg 222	Vehicles Entering Intersection 110	Eastbound	Cars	Heavy	Total	
	6		6	2	8	
	0		0	0	0	
	62		62	0	62	
	0		0	0	0	
	47		47	1	48	



Daily Volumes



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 0	Total Vehicles on Leg 0
0	0	0		0	
0	0	0		0	
0	0	0		0	
0	0	0		0	
0	0	0			



Cars	0	2	35	619	0
Heavy	0	0	3	6	0
Total	0	2	38	625	0
Northbound					
Vehicles Entering Intersection 665			Vehicles Exiting Intersection 903		
Total Vehicles On Leg			1568		

# CAM2-University Blvd and Woodward Rd - AM

0 0

Tuesday, April 9, 2024

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:30 AM	0	0	54	5	0	59	0	0	0	0	0	0	0	8	118	0	0	126	0	7	0	31	0	38	223
7:45 AM	0	0	88	6	0	94	0	0	0	0	0	0	0	10	149	0	0	159	0	9	0	24	1	33	286
8:00 AM	0	0	85	3	0	88	0	0	0	0	0	0	0	24	149	0	0	173	0	6	0	27	0	33	294
8:15 AM	0	0	70	5	0	75	0	0	0	0	0	0	0	22	90	0	0	112	0	7	0	24	1	31	218
Peak Hour Total	0	0	297	19	0	316	0	0	0	0	0	0	0	64	506	0	0	570	0	29	0	106	2	135	1021
PHF	0.000	0.000	0.844	0.792	0.000	0.840	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.849	0.000	0.000	0.824	0.000	0.806	0.000	0.855	0.500	0.888	0.868

Total Vehicles On Leg			1438		
Vehicles Entering Intersection 510			Vehicles Exiting Intersection 928		
Southbound					
Cars	32	460	0	0	0
Heavy	0	18	0	0	0
Total	32	478	0	0	0



Total Vehicles on Leg 381	Vehicles Entering Intersection 241	Eastbound	Cars	Heavy	Total	
	2		1	0	3	
	0		0	0	0	
	53		2	55		
	0		0	0	0	
	Vehicles Exiting Intersection 140		180	6	186	



Daily Volumes



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 0	Total Vehicles on Leg 0
0	0	0		0	
0	0	0		0	
0	0	0		0	
0	0	0		0	
0	0	0		Vehicles Exiting Intersection 0	



Cars	0	0	106	859	0
Heavy	0	0	2	14	0
Total	0	0	108	873	0
Northbound					
Vehicles Entering Intersection 981			Vehicles Exiting Intersection 664		
Total Vehicles On Leg			1645		

# CAM2-University Blvd and Woodward Rd - PM

0 0

Tuesday, April 9, 2024

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:00 PM	0	0	125	8	0	133	0	0	0	0	0	0	1	29	74	0	0	104	0	16	0	22	1	38	275
4:15 PM	0	0	111	4	0	115	0	0	0	0	0	0	2	11	81	0	0	94	0	4	0	23	0	27	236
4:30 PM	0	0	141	7	0	148	0	0	0	0	0	0	3	26	80	0	0	109	0	8	0	14	1	22	279
4:45 PM	0	0	111	10	0	121	0	0	0	0	0	0	1	27	82	0	0	110	0	4	0	21	0	25	256
Peak Hour Total PHF	0	0	488	29	0	517	0	0	0	0	0	0	7	93	317	0	0	417	0	32	0	80	2	112	1046
	0.000	0.000	0.865	0.725	0.000	0.873	0.000	0.000	0.000	0.000	0.000	0.000	0.583	0.802	0.966	0.000	0.000	0.948	0.000	0.500	0.000	0.870	0.500	0.737	0.937

Total Vehicles On Leg			1567		
Vehicles Entering Intersection 905			Vehicles Exiting Intersection 662		
Southbound					
Cars	69	830	0	0	0
Heavy	0	6	0	0	0
Total	69	836	0	0	0



Total Vehicles on Leg 474	Vehicles Entering Intersection 239	Eastbound	Cars	Heavy	Total	    
	0		0	3	3	
	1		1	0	1	
	74		74	1	75	
	0		0	0	0	
	Vehicles Exiting Intersection 235		159	4	163	

Daily Volumes



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 0	Total Vehicles on Leg 0
0	0	0		0	
0	0	0		0	
0	0	0		0	
0	0	0		0	
0	0	0		Vehicles Exiting Intersection 0	



Cars	0	8	162	579	0
Heavy	0	0	3	8	0
Total	0	8	165	587	0
Northbound					
Vehicles Entering Intersection 760			Vehicles Exiting Intersection 1007		
Total Vehicles On Leg			1767		

CAM3-Woodward and Transport - AM

0 0

Tuesday, April 9, 2024

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:15 AM	0	8	0	0	0	8	0	0	0	7	0	7	0	0	0	1	0	1	0	0	0	0	0	0	16
7:30 AM	0	8	0	0	0	8	0	0	0	7	0	7	0	0	0	4	0	4	0	0	0	0	0	0	19
7:45 AM	0	15	0	0	0	15	0	0	0	7	0	7	0	0	1	3	0	4	0	0	0	0	0	0	26
8:00 AM	0	10	0	0	0	10	0	0	0	7	0	7	0	0	0	2	0	2	0	0	0	0	0	0	19
Peak Hour Total PHF	0	41	0	0	0	41	0	0	0	28	0	28	0	0	1	10	0	11	0	0	0	0	0	0	80
	0.000	0.683	0.000	0.000	0.000	0.683	0.000	0.000	0.000	1.000	0.000	1.000	0.000	0.000	0.250	0.625	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.000	0.769

Total Vehicles On Leg			124		
Vehicles Entering Intersection 71			Vehicles Exiting Intersection 53		
Southbound					
Cars	0	0	67	0	0
Heavy	0	0	4	0	0
Total	0	0	71	0	0



Total Vehicles on Leg 0	Vehicles Entering Intersection 0	Eastbound	Cars	Heavy	Total	
			0	0	0	
			0	0	0	
			0	0	0	
	Vehicles Exiting Intersection 0		0	0	0	

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 53	Total Vehicles on Leg 136
52	0	52			
0	0	0			
1	0	1			
0	0	0		Vehicles Exiting Intersection 83	
0	0	0			



Cars	2	0	0	1	12
Heavy	0	0	0	0	0
Total	2	0	0	1	12
Northbound					
Vehicles Entering Intersection 13			Vehicles Exiting Intersection 1		
Total Vehicles On Leg			14		



CAM3-Woodward and Transport - PM

0 0

Tuesday, April 9, 2024

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:45 PM	0	10	1	0	0	11	0	1	0	8	0	9	0	0	0	1	0	1	0	0	0	0	0	0	21
5:00 PM	0	13	0	0	0	13	1	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	17
5:15 PM	0	15	0	0	0	15	0	0	0	12	0	12	0	0	0	2	2	2	0	0	0	0	2	0	29
5:30 PM	0	14	0	0	0	14	1	0	0	4	0	5	0	0	0	1	0	1	0	0	0	0	0	0	20
Peak Hour Total PHF	0	52	1	0	0	53	2	1	0	27	1	30	0	0	0	4	2	4	0	0	0	0	2	0	87
	0.000	0.867	0.250	0.000	0.000	0.883	0.500	0.250	0.000	0.563	0.250	0.625	0.000	0.000	0.000	0.500	0.250	0.500	0.000	0.000	0.000	0.000	0.250	0.000	0.750

Total Vehicles On Leg			138		
Vehicles Entering Intersection 86			Vehicles Exiting Intersection 52		
Southbound					
Cars	0	4	77	0	0
Heavy	0	0	5	0	0
Total	0	4	82	0	0



Total Vehicles on Leg 0	Vehicles Entering Intersection 0	Eastbound	Cars	Heavy	Total	
			2	0	2	
			0	0	0	
			0	0	0	
	Vehicles Exiting Intersection 0		0	0	0	



Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 55	Total Vehicles on Leg 150
50	1	51			
0	0	0			
2	0	2			
2	0	2		Vehicles Exiting Intersection 95	
1	0	1			



Cars	2	0	0	1	11
Heavy	0	0	0	0	0
Total	2	0	0	1	11
Northbound					
Vehicles Entering Intersection 12			Vehicles Exiting Intersection 6		
Total Vehicles On Leg			18		

# Flightaway and Private Drive

0 0

Tuesday, April 9, 2024

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:45 AM	0	0	6	7	0	13	0	0	0	0	0	0	0	4	5	0	0	9	0	0	0	0	0	0	22
8:00 AM	0	0	6	7	0	13	0	0	0	0	0	0	0	6	4	0	0	10	0	4	0	3	0	7	30
8:15 AM	0	0	1	6	0	7	0	0	0	0	0	0	0	3	5	0	0	8	0	5	0	0	0	5	20
8:30 AM	0	0	4	7	0	11	0	0	0	0	0	0	0	6	8	0	0	14	0	1	0	1	0	2	27
Peak Hour Total	0	0	17	27	0	44	0	0	0	0	0	0	0	19	22	0	0	41	0	10	0	4	0	14	99
PHF	0.000	0.000	0.708	0.964	0.000	0.846	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.792	0.688	0.000	0.000	0.732	0.000	0.500	0.000	0.333	0.000	0.500	0.825

Total Vehicles On Leg			148		
Vehicles Entering Intersection 85			Vehicles Exiting Intersection 63		
Southbound					
Cars	59	22	0	0	0
Heavy	0	4	0	0	0
Total	59	26	0	0	0



Total Vehicles on Leg 104	Vehicles Entering Intersection 18	Eastbound	Cars	Heavy	Total	
			2	0	2	
			0	0	0	
	Vehicles Exiting Intersection 86		13	0	13	
			0	0	0	
			5	0	5	

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 0	Total Vehicles on Leg 0
0	0	0			
0	0	0			
0	0	0		Vehicles Exiting Intersection 0	
0	0	0			
0	0	0			



Cars	0	0	27	50	0
Heavy	0	0	0	0	0
Total	0	0	27	50	0
Northbound					
Vehicles Entering Intersection 77			Vehicles Exiting Intersection 31		
Total Vehicles On Leg			108		



# CAM4-Flightway Ave and Private Driveway - PM

0 0

Tuesday, April 9, 2024

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:30 PM	0	0	11	0	0	11	0	0	0	0	0	0	0	0	7	0	0	7	0	10	0	2	0	12	30
4:45 PM	0	0	9	1	0	10	0	0	0	0	0	0	0	1	3	0	0	4	0	8	0	3	0	11	25
5:00 PM	0	0	16	0	0	16	0	0	0	0	0	0	0	0	8	0	0	8	0	6	0	4	0	10	34
5:15 PM	0	0	5	3	0	8	0	0	0	0	0	0	0	5	8	0	0	13	0	4	0	4	1	8	29
Peak Hour Total	0	0	41	4	0	45	0	0	0	0	0	0	0	6	26	0	0	32	0	28	0	13	1	41	118
PHF	0.000	0.000	0.641	0.333	0.000	0.703	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.813	0.000	0.000	0.615	0.000	0.700	0.000	0.813	0.250	0.854	0.868

Total Vehicles On Leg			173		
Vehicles Entering Intersection 94			Vehicles Exiting Intersection 79		
Southbound					
Cars	8	82	0	0	0
Heavy	1	3	0	0	0
Total	9	85	0	0	0



Total Vehicles on Leg 74	Vehicles Entering Intersection 58	Eastbound	Cars	Heavy	Total	
			1	0	1	
			0	0	0	
			35	0	35	
	Vehicles Exiting Intersection 16		0	0	0	
			22	1	23	



Daily Volumes



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 0	Total Vehicles on Leg 0
0	0	0			
0	0	0			
0	0	0			
0	0	0		Vehicles Exiting Intersection 0	
0	0	0			



Cars	0	0	7	44	0
Heavy	0	0	0	0	0
Total	0	0	7	44	0
Northbound					
Vehicles Entering Intersection 51			Vehicles Exiting Intersection 108		
Total Vehicles On Leg			159		

## Appendix 06





Historic Growth Data Table  
Transport Apartments  
(Flightway Ave /University Blvd)

Traffic Flows (AWDT) from Mid-Region Council of Governments

COG ID	Location	Paseo del Norte and Holbrook									
Intersection #1:	UNIVERSITY / Not Found										
Street:	From:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
26655 UNIVERSITY	N. OF SUNPORT/UNIV. N. RAMPS - SOUTH OF RANDOLPH	10,719	10,698	10,666	9,181	9,144	9,181	9,046	9,109	9,176	11,868

University Blvd. N. OF SUNPORT - SOUTH OF RANDOLPH



## Appendix 07



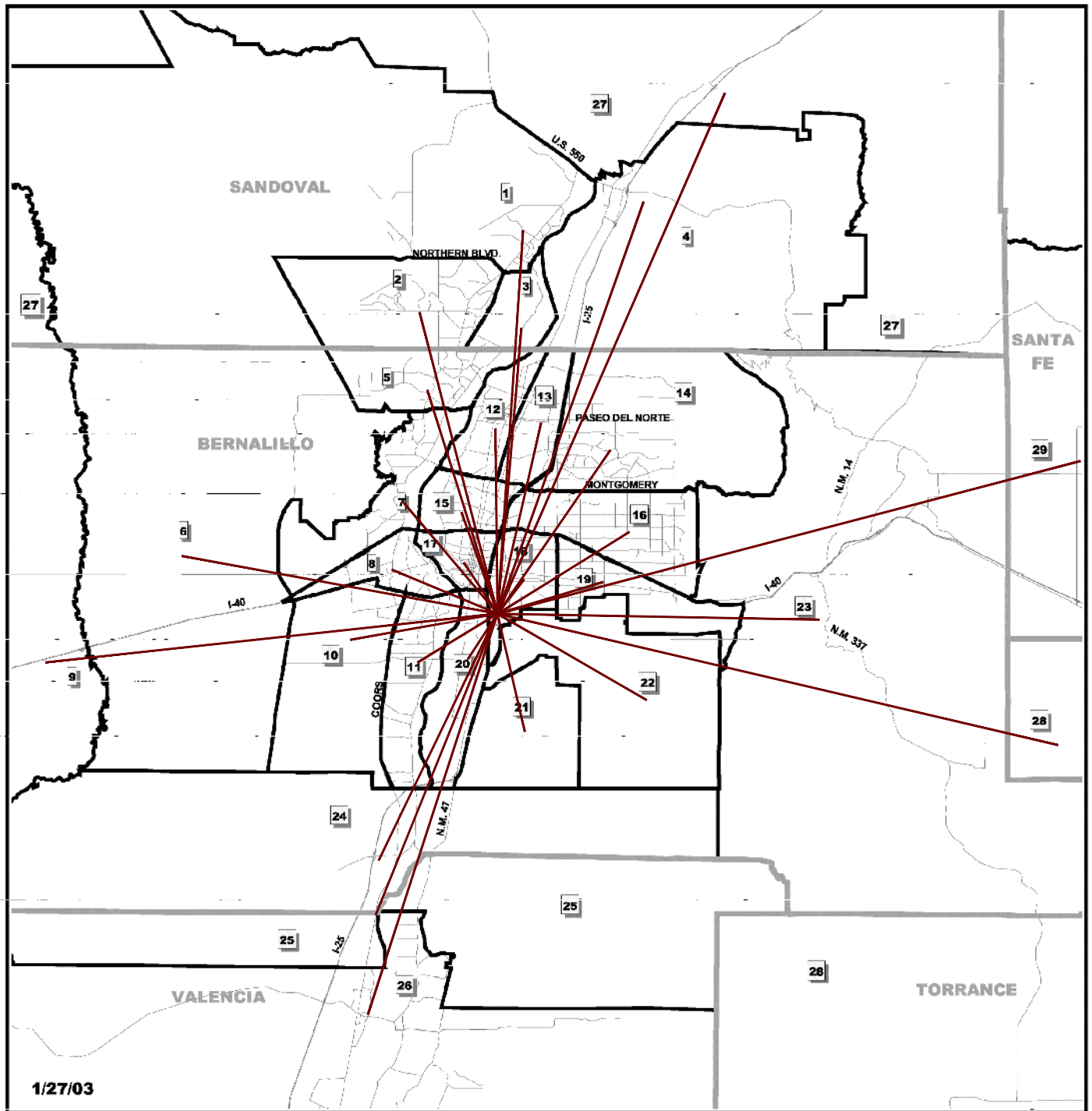


Figure 6

**22** Subarea Identification Number

**Subareas of the MRCOG Region**



**Mid-Region  
Council of Governments**  
317 Commercial NE, Suite 104  
Albuquerque, NM 87102  
505-247-1750

Subarea boundaries extend to county boundary  
where full extent of subarea not shown except for Subarea 29  
which only includes southern Santa Fe County.

**Transport Apartments  
(Flightway Ave at University Blvd)  
Residential Trip Distribution Subarea Map**

Trip Distribution Table

Project Name: Transport Apartments

Sub Area Employment Data:

For determination of Trip Distribution for Proposed Residential Development Trips

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

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

									UNW)			(US)			(DN)		
								University Blvd. North			University Blvd. South			DaVita North			
Sub Area I.D.#	% Sub Area in Study	2016 Employment	2040 Employment	Interpolated Employment for the Year	Employment in Study	Dist. (Mi.)	Employment / Distance	% Employment / Distance	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
		2016	2040	2025													
1	100%	8,354	11,675	9,599	9,599	16.4	585	0.71%	20%	0.14%	117	80%	0.57%	468	0%	0.00%	0
2	100%	16,637	19,808	17,826	17,826	13.3	1,340	1.62%	20%	0.32%	268	80%	1.30%	1,072	0%	0.00%	0
3	100%	1,731	1,938	1,809	1,809	12.3	147	0.18%	20%	0.04%	29	80%	0.14%	118	0%	0.00%	0
4	100%	3,725	4,083	3,859	3,859	18.7	206	0.25%	20%	0.05%	41	80%	0.20%	165	0%	0.00%	0
5	100%	13,625	15,349	14,272	14,272	10	1,427	1.73%	20%	0.35%	285	80%	1.38%	1,142	0%	0.00%	0
6	100%	1,113	4,263	2,294	2,294	13.7	167	0.20%	30%	0.06%	50	70%	0.14%	117	0%	0.00%	0
7	100%	9,234	11,922	10,242	10,242	6.3	1,626	1.97%	30%	0.59%	488	70%	1.38%	1,138	0%	0.00%	0
8	100%	9,101	12,837	10,502	10,502	4.9	2,143	2.59%	50%	1.30%	1,072	50%	1.30%	1,072	0%	0.00%	0
9	100%	724	1,023	836	836	19.4	43	0.05%	20%	0.01%	9	80%	0.04%	34	0%	0.00%	0
10	100%	3,409	5,330	4,129	4,129	6.4	645	0.78%	20%	0.16%	129	80%	0.62%	516	0%	0.00%	0
11	100%	5,699	6,882	6,143	6,143	4	1,536	1.86%	20%	0.37%	307	80%	1.49%	1,229	0%	0.00%	0
12	100%	6,287	7,474	6,732	6,732	7.9	852	1.03%	20%	0.21%	170	80%	0.82%	682	0%	0.00%	0
13	100%	38,387	42,986	40,112	40,112	8.4	4,775	5.78%	20%	1.16%	955	80%	4.62%	3,820	0%	0.00%	0
14	100%	37,195	40,809	38,550	38,550	8.5	4,535	5.49%	20%	1.10%	907	80%	4.39%	3,628	0%	0.00%	0
15	100%	17,358	20,784	18,643	18,643	4.6	4,053	4.90%	20%	0.98%	811	80%	3.92%	3,242	0%	0.00%	0
16	100%	54,135	60,416	56,490	56,490	6.6	8,559	10.36%	80%	8.29%	6,847	20%	2.07%	1,712	0%	0.00%	0
17	100%	40,280	48,177	43,241	43,241	2.6	16,631	20.13%	50%	10.06%	8,316	50%	10.06%	8,316	0%	0.00%	0
18	100%	32,770	38,004	34,733	34,733	1.9	18,280	22.12%	75%	16.59%	13,710	20%	4.42%	3,656	5%	1.11%	914
19	100%	24,729	28,854	26,276	26,276	4.7	5,591	6.77%	50%	3.38%	2,795	50%	3.38%	2,795	0%	0.00%	0
20	100%	5,978	8,831	7,048	7,048	2.3	3,064	3.71%	0%	0.00%	0	100%	3.71%	3,064	0%	0.00%	0
21	100%	1,755	4,714	2,865	2,865	5.2	551	0.67%	0%	0.00%	0	100%	0.67%	551	0%	0.00%	0
22	100%	28,349	31,083	29,374	29,374	7.4	3,969	4.80%	0%	0.00%	0	100%	4.80%	3,969	0%	0.00%	0
23	100%	2,923	3,349	3,083	3,083	13.8	223	0.27%	0%	0.00%	0	100%	0.27%	223	0%	0.00%	0
24	100%	1,271	1,266	1,269	1,269	11.7	108	0.13%	0%	0.00%	0	100%	0.13%	108	0%	0.00%	0
25	100%	112	112	112	112	13.9	8	0.01%	0%	0.00%	0	100%	0.01%	8	0%	0.00%	0
26	100%	17,882	21,300	19,164	19,164	18	1,065	1.29%	0%	0.00%	0	100%	1.29%	1,065	0%	0.00%	0
27	100%	5,846	6,024	5,913	5,913	24.3	243	0.29%	20%	0.06%	49	80%	0.24%	195	0%	0.00%	0
28	100%	4,338	5,143	4,640	4,640	24.6	189	0.23%	80%	0.18%	151	20%	0.05%	38	0%	0.00%	0
29	100%	1,784	2,111	1,907	1,907	25.8	74	0.09%	80%	0.07%	59	20%	0.02%	15	0%	0.00%	0
		394,731	466,547	421,662	421,662		82,639	100.00%		45.46%	37,566		53.44%	44,159		1.11%	914
										45.46%			53.44%				1.11%
										Use 45%			Use 54%				Use 1%

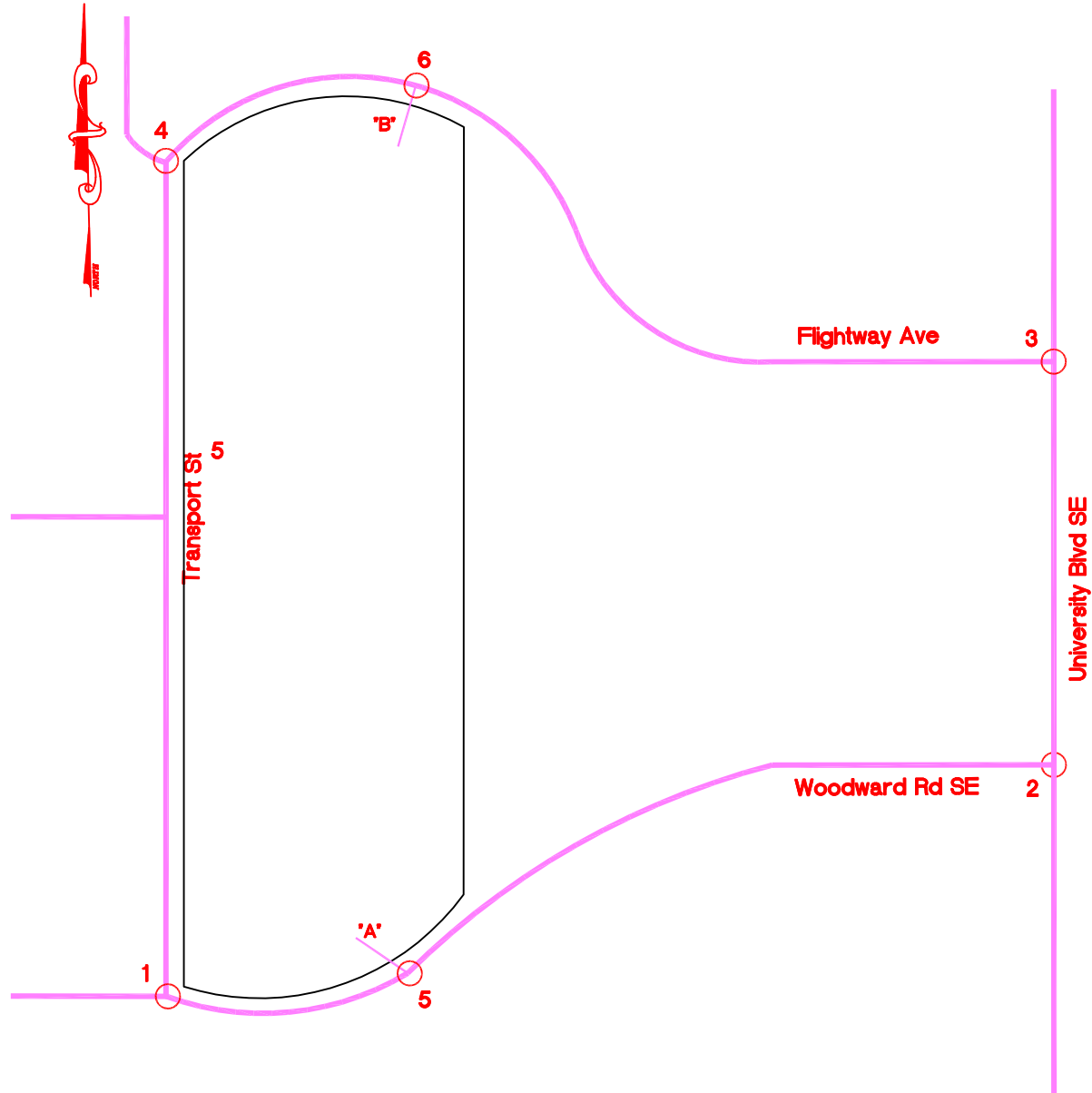
\* - Subarea in which the site it located.



# *Transport Apartments - Albuquerque, NM*

(Flightway Ave / University Blvd)

## *Intersection Reference Map*



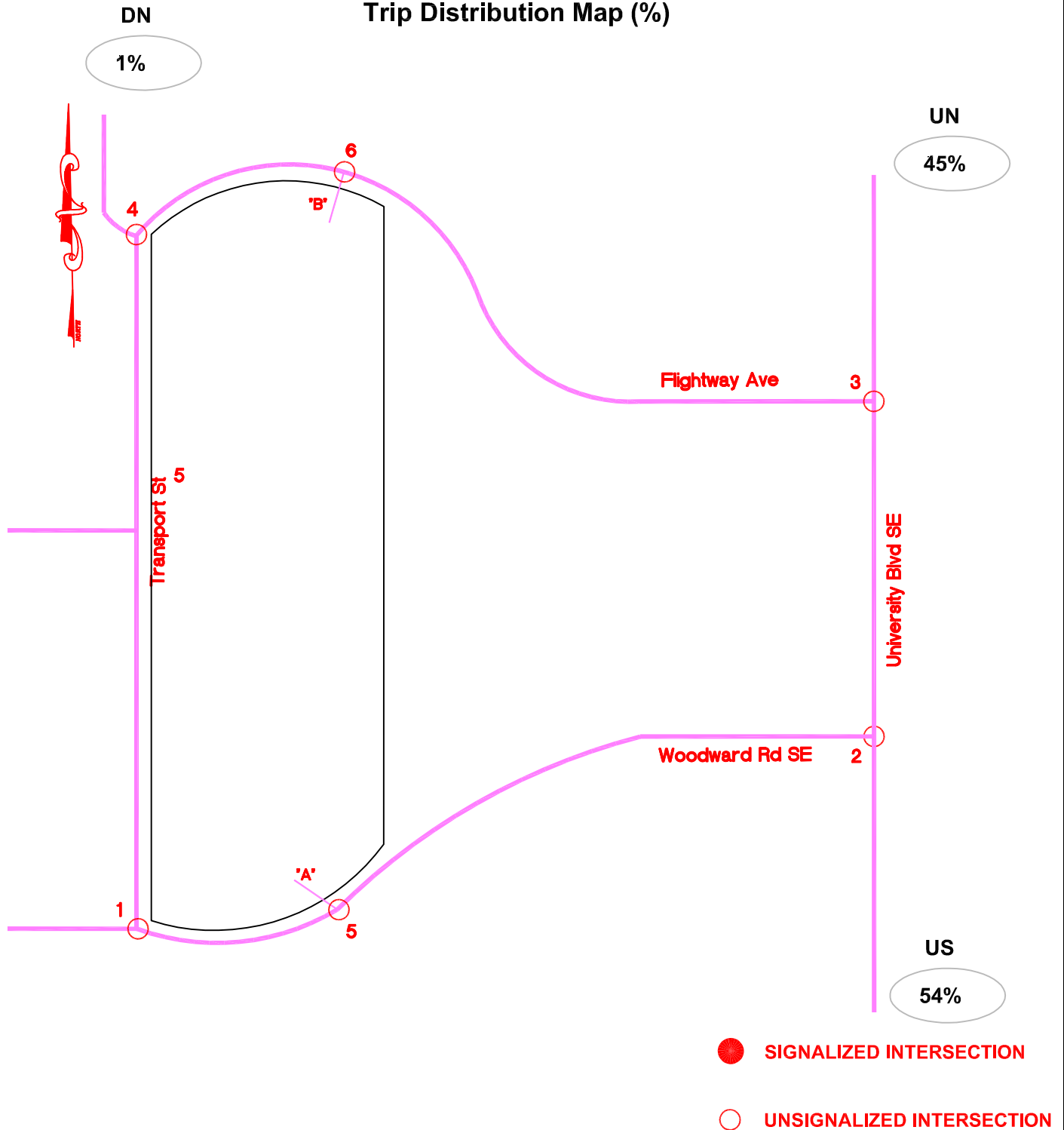
-  SIGNALIZED INTERSECTION
-  UNSIGNALIZED INTERSECTION

TIERRA WEST, LLC  
5571 MIDWAY PARK PLACE NE  
ALBUQUERQUE, NEW MEXICO 87109  
(505)858-3100

# Transport Apartments - Albuquerque, NM

(Flightway Ave / University Blvd)

Trip Distribution Map (%)

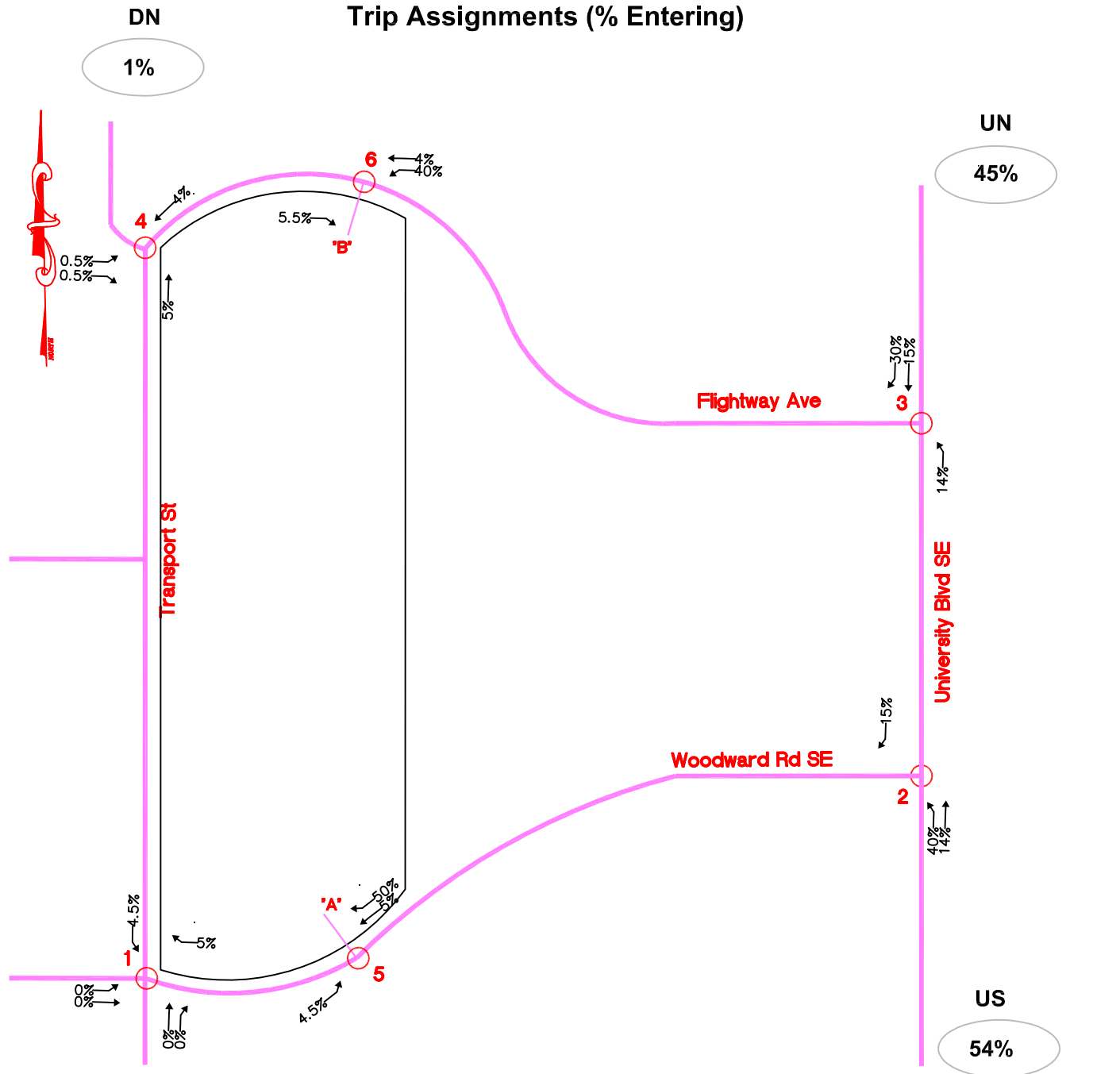


TIERRA WEST, LLC  
5571 MIDWAY PARK PLACE NE  
ALBUQUERQUE, NEW MEXICO 87109  
(505)858-3100

# Transport Apartments - Albuquerque, NM

(Flightway Ave / University Blvd)

Trip Assignments (% Entering)



● SIGNALIZED INTERSECTION

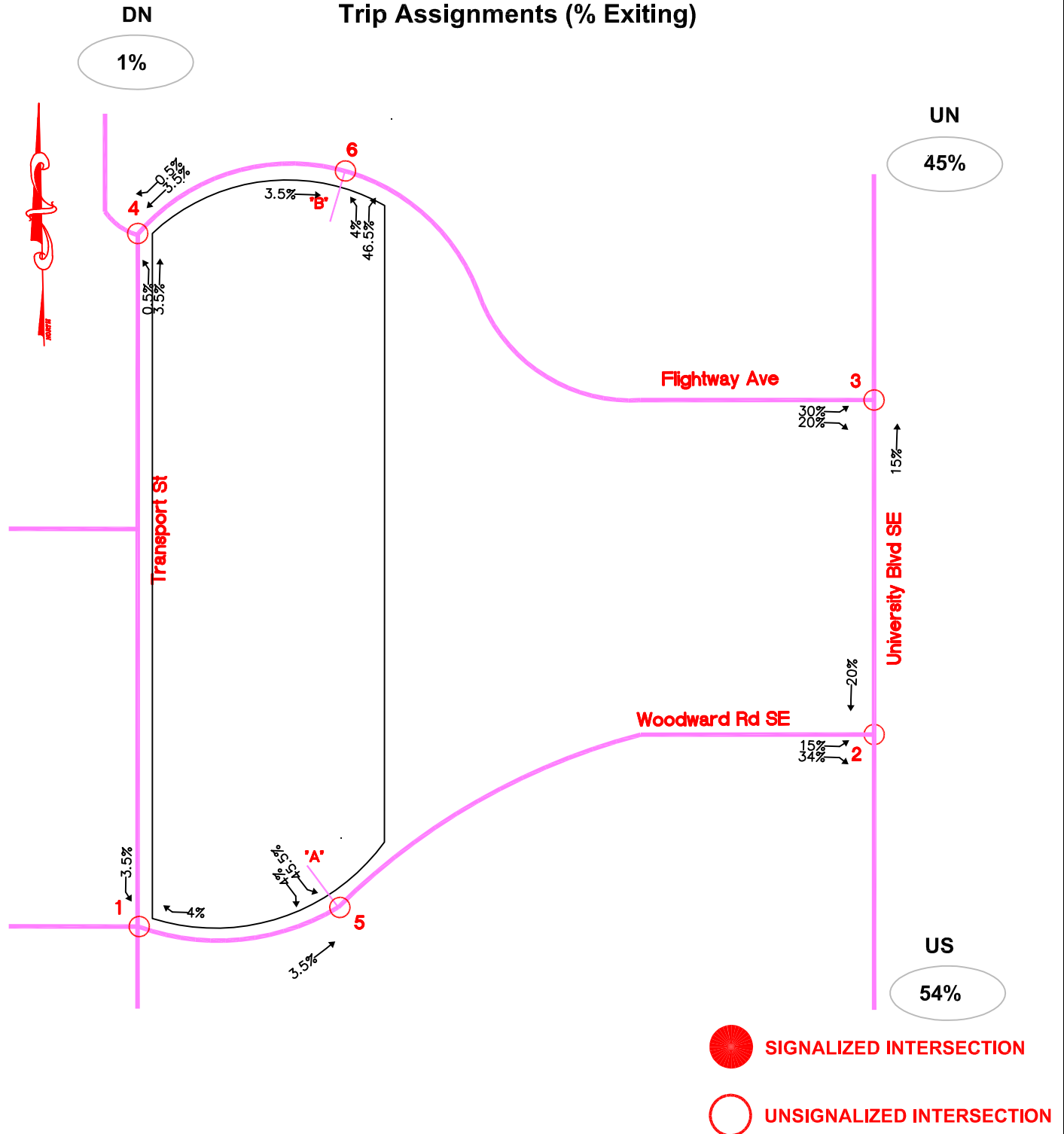
○ UNSIGNALIZED INTERSECTION

TIERRA WEST, LLC  
5571 MIDWAY PARK PLACE NE  
ALBUQUERQUE, NEW MEXICO 87109  
(505)858-3100

# Transport Apartments - Albuquerque, NM

(Flightway Ave / University Blvd)

Trip Assignments (% Exiting)



**SIGNALIZED INTERSECTION**



**UNSIGNALIZED INTERSECTION**



**TIERRA WEST, LLC**

5571 MIDWAY PARK PLACE NE  
ALBUQUERQUE, NEW MEXICO 87109  
(505)858-3100

## Appendix 08





## Transport Apartments (Flightway Ave / University Blvd, NM)

### Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2025) - 100% Development

#### INTERSECTION: Summary

Woodward Rd / Transport St		1.00			1.00			1.00			1.00			PHF
(1)		Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Transport St)			Southbound (Transport St)			
	3% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2024)		0	0	0	1	0	52	0	1	12	71	0	0	
2025 (NO BUILD - A.M.)		0	0	0	1	0	52	0	1	12	71	0	0	
2025 (BUILD - A.M.)		0	0	0	1	0	57	0	1	12	75	0	0	

		1.00			1.00			1.00			1.00			PHF
		Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Transport St)			Southbound (Transport St)			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2024)		0	0	0	4	0	51	0	1	11	82	4	0	
2025 (NO BUILD - P.M.)		0	0	0	4	0	51	0	1	11	82	4	0	
2025 (BUILD - P.M.)		0	0	0	4	0	57	0	1	11	87	4	0	

Woodward Rd / University Blvd		1.00			1.00			1.00			1.00			PHF
(2)		Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (University Blvd)			Southbound (University Blvd)			
	3% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2024)		55	0	186	0	0	0	106	873	0	0	478	32	
2025 (NO BUILD - A.M.)		55	0	187	0	0	0	107	877	0	0	480	32	
2025 (BUILD - A.M.)		66	0	213	0	0	0	119	881	0	0	495	37	

		1.00			1.00			1.00			1.00			PHF
		Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (University Blvd)			Southbound (University Blvd)			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2024)		75	0	163	0	0	0	173	587	0	0	836	69	
2025 (NO BUILD - P.M.)		75	0	164	0	0	0	174	590	0	0	840	69	
2025 (BUILD - P.M.)		83	0	183	0	0	0	205	601	0	0	851	81	

Flightway Ave / University Blvd		1.00			1.00			1.00			1.00			PHF
(3)		Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (University Blvd)			Southbound (University Blvd)			
	3% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2024)		50	0	35	0	0	0	75	853	0	0	474	40	
2025 (NO BUILD - A.M.)		50	0	35	0	0	0	75	857	0	0	476	40	
2025 (BUILD - A.M.)		73	0	50	0	0	0	79	868	0	0	481	49	

		1.00			1.00			1.00			1.00			PHF
		Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (University Blvd)			Southbound (University Blvd)			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2024)		62	0	48	0	0	0	40	625	0	0	853	74	
2025 (NO BUILD - P.M.)		62	0	48	0	0	0	40	628	0	0	857	74	
2025 (BUILD - P.M.)		79	0	59	0	0	0	51	636	0	0	869	97	

Davita Dr / Transport St		1.00			1.00			1.00			1.00			PHF
(4)		Eastbound (Davita Dr)			Westbound (Davita Dr)			Northbound (Transport St)			Southbound (Transport St)			
	3% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2024)		13	0	5	0	0	0	27	50	0	0	26	59	
2025 (NO BUILD - A.M.)		13	0	5	0	0	0	27	50	0	0	26	59	
2025 (BUILD - A.M.)		13	0	5	0	0	0	27	55	0	0	30	59	

		1.00			1.00			1.00			1.00			PHF
		Eastbound (Davita Dr)			Westbound (Davita Dr)			Northbound (Transport St)			Southbound (Transport St)			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2024)		35	0	23	0	0	0	7	44	0	0	85	9	
2025 (NO BUILD - P.M.)		35	0	23	0	0	0	7	44	0	0	85	9	
2025 (BUILD - P.M.)		35	0	23	0	0	0	7	50	0	0	90	9	

## Transport Apartments (Flightway Ave / University Blvd, NM)

### Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2025) - 100% Development

#### INTERSECTION: Summary

Woodward Rd / Driveway "A"												
1.00			1.00			1.00			1.00			PHF
Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Driveway "A")			Southbound (Driveway "A")			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	83	0	0	53	0	0	0	0	0	0	0	0
0	83	0	0	53	0	0	0	0	0	0	0	0
1	86	0	0	55	16	0	0	0	34	0	3	
1.00			1.00			1.00			1.00			PHF
Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Driveway "A")			Southbound (Driveway "A")			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	93	0	0	55	0	0	0	0	0	0	0	0
0	93	0	0	55	0	0	0	0	0	0	0	0
3	95	0	0	59	39	0	0	0	25	0	2	
Flightway Ave / Driveway "B"												
1.00			1.00			1.00			1.00			PHF
Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (Driveway "B")			Southbound (Driveway "B")			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	63	0	0	85	0	0	0	0	0	0	0	0
0	63	0	0	85	0	0	0	0	0	0	0	0
0	66	2	12	86	0	3	0	35	0	0	0	
1.00			1.00			1.00			1.00			PHF
Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (Driveway "B")			Southbound (Driveway "B")			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	79	0	0	94	0	0	0	0	0	0	0	0
0	79	0	0	94	0	0	0	0	0	0	0	0
0	81	4	31	97	0	2	0	26	0	0	0	

**Transport Apartments (Flightway Ave / University Blvd, NM)**

Projected Turning Movements Worksheet

**Woodward Rd / Transport St**

**INTERSECTION :**

E-W Street: **Woodward Rd**

(1)

N-S Street: **Transport St**

Year of Existing Counts  
Horizon Year

2024

2025

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Transport St)			Southbound (Transport St)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	1	0	52	0	1	12	71	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	52	0	1	12	71	0	0
0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	4.50%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	3.50%	0.00%	0.00%
0	0	0	0	0	5	0	0	0	4	0	0
0	0	0	1	0	57	0	1	12	75	0	0
0	0	0	1	0	57	0	1	12	75	0	0

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Transport St)			Southbound (Transport St)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	4	0	51	0	1	11	82	4	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	4	0	51	0	1	11	82	4	0
0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	4.50%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	3.50%	0.00%	0.00%
0	0	0	0	0	6	0	0	0	5	0	0
0	0	0	4	0	57	0	1	11	87	4	0
0	0	0	4	0	57	0	1	11	87	4	0

Number of Residential Trips Generated

Entering

Exiting

31

75

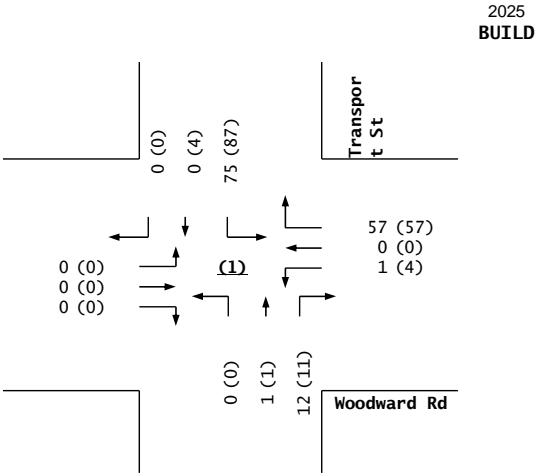
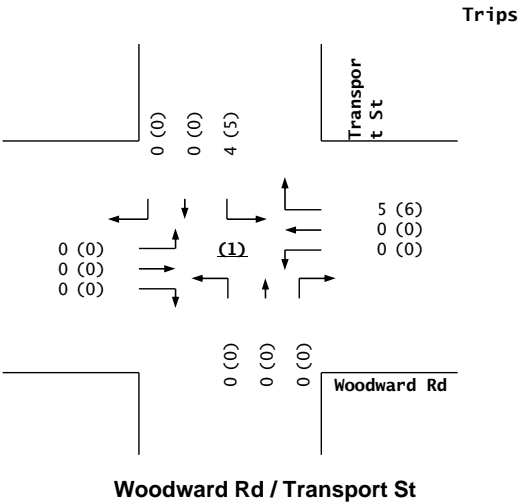
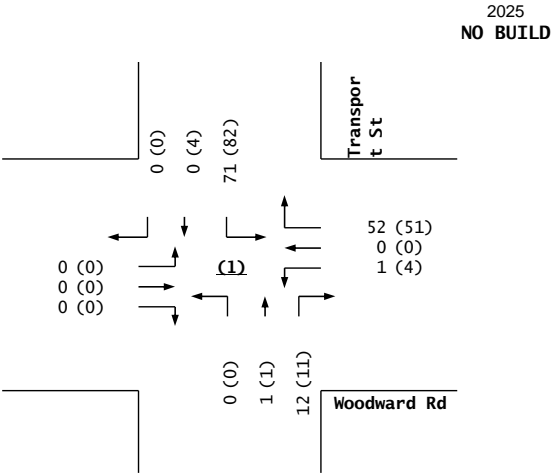
A.M.

100% Residential Development

77

55

P.M.



# *Transport Apartments (Flightway Ave / University Blvd, NM)*

## Projected Turning Movements Worksheet

### **Woodward Rd / University Blvd**

#### INTERSECTION :

E-W Street: **Woodward Rd**

(2)

N-S Street: **University Blvd**

Year of Existing Counts  
Horizon Year

2024

2025

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (University Blvd)			Southbound (University Blvd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
55	0	186	0	0	0	106	873	0	0	478	32
0	0	1	0	0	0	1	4	0	0	2	0
55	0	187	0	0	0	107	877	0	0	480	32
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	14.00%	0.00%	0.00%	0.00%	15.00%
15.00%	0.00%	34.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%
11	0	26	0	0	0	12	4	0	0	15	5
66	0	213	0	0	0	119	881	0	0	495	37
66	0	213	0	0	0	119	881	0	0	495	37

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (University Blvd)			Southbound (University Blvd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
75	0	163	0	0	0	173	587	0	0	836	69
0	0	1	0	0	0	1	3	0	0	4	0
75	0	164	0	0	0	174	590	0	0	840	69
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	14.00%	0.00%	0.00%	0.00%	15.00%
15.00%	0.00%	34.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%
8	0	19	0	0	0	31	11	0	0	11	12
83	0	183	0	0	0	205	601	0	0	851	81
83	0	183	0	0	0	205	601	0	0	851	81

Number of Residential Trips Generated

Entering

Exiting

31

75

A.M.

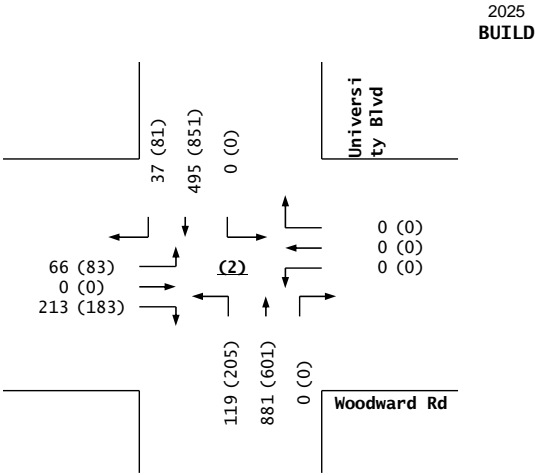
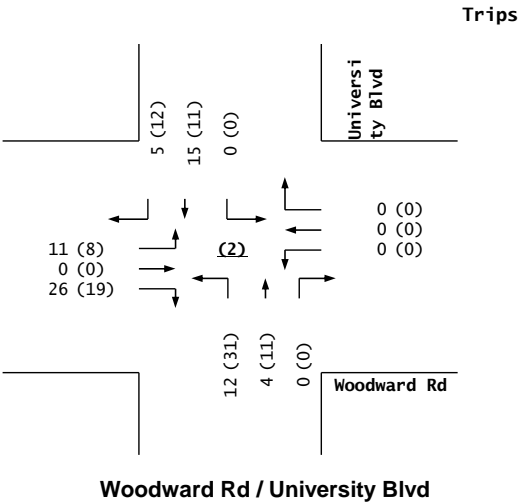
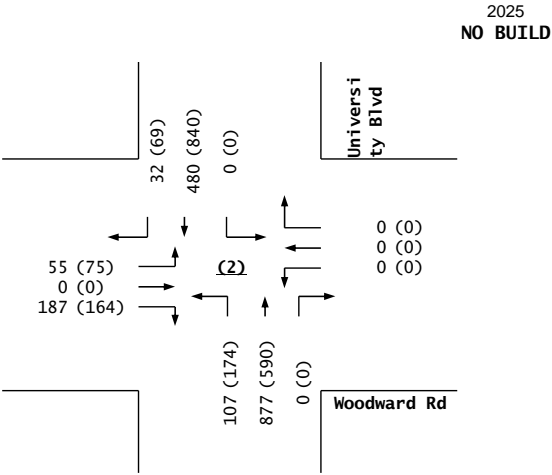
100% Residential Development

77

55

P.M.





# **Transport Apartments (Flightway Ave / University Blvd, NM)**

## Projected Turning Movements Worksheet

### **Flightway Ave / University Blvd**

**INTERSECTION :**

E-W Street: **Flightway Ave**

(3)

N-S Street: **University Blvd**

Year of Existing Counts  
Horizon Year

2024

2025

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (University Blvd)			Southbound (University Blvd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
50	0	35	0	0	0	75	853	0	0	474	40
0	0	0	0	0	0	0	4	0	0	2	0
50	0	35	0	0	0	75	857	0	0	476	40
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.00%	0.00%	0.00%	0.00%	15.00%	30.00%
30.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%
23	0	15	0	0	0	4	11	0	0	5	9
73	0	50	0	0	0	79	868	0	0	481	49
73	0	50	0	0	0	79	868	0	0	481	49

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (University Blvd)			Southbound (University Blvd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
62	0	48	0	0	0	40	625	0	0	853	74
0	0	0	0	0	0	0	3	0	0	4	0
62	0	48	0	0	0	40	628	0	0	857	74
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.00%	0.00%	0.00%	0.00%	15.00%	30.00%
30.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%
17	0	11	0	0	0	11	8	0	0	12	23
79	0	59	0	0	0	51	636	0	0	869	97
79	0	59	0	0	0	51	636	0	0	869	97

Number of Residential Trips Generated

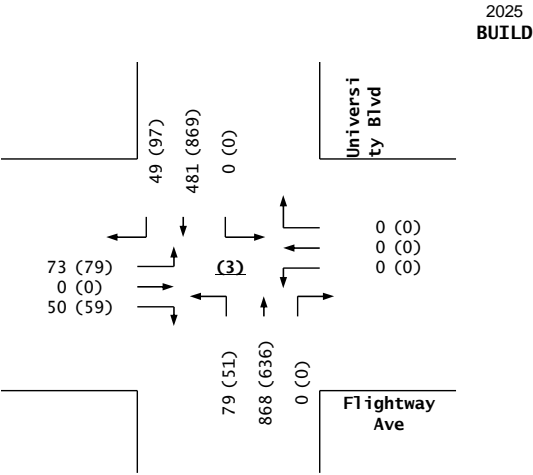
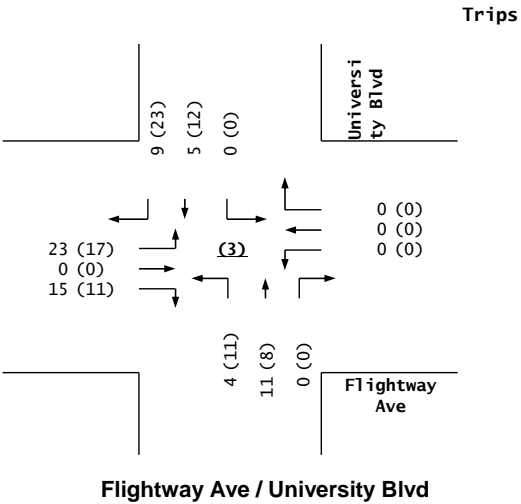
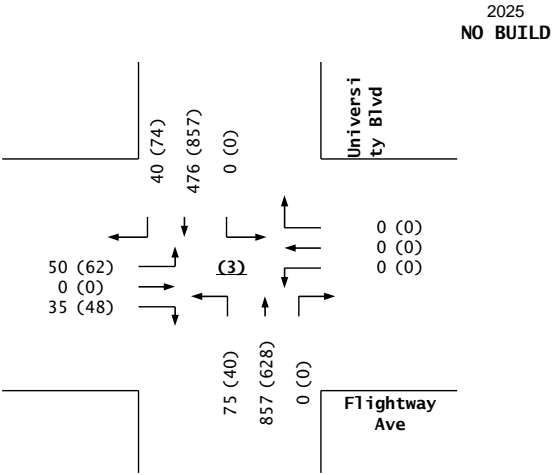
Entering 31

Exiting 75

A.M.

100% Residential Development

77 55 P.M.



# *Transport Apartments (Flightway Ave / University Blvd, NM)*

Projected Turning Movements Worksheet

## **Davita Dr / Transport St**

INTERSECTION :

E-W Street: **Davita Dr**

(4)

N-S Street: **Transport St**

Year of Existing Counts  
Horizon Year

2024

2025

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Davita Dr)			Westbound (Davita Dr)			Northbound (Transport St)			Southbound (Transport St)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
13	0	5	0	0	0	27	50	0	0	26	59
0	0	0	0	0	0	0	0	0	0	0	0
13	0	5	0	0	0	27	50	0	0	26	59
0.50%	0.00%	0.50%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	4.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.50%	3.50%	0.00%	0.00%	3.50%	0.50%
0	0	0	0	0	0	0	5	0	0	4	0
13	0	5	0	0	0	27	55	0	0	30	59
13	0	5	0	0	0	27	55	0	0	30	59

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Davita Dr)			Westbound (Davita Dr)			Northbound (Transport St)			Southbound (Transport St)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
35	0	23	0	0	0	7	44	0	0	85	9
0	0	0	0	0	0	0	0	0	0	0	0
35	0	23	0	0	0	7	44	0	0	85	9
0.50%	0.00%	0.50%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	4.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.50%	3.50%	0.00%	0.00%	3.50%	0.50%
0	0	0	0	0	0	0	6	0	0	5	0
35	0	23	0	0	0	7	50	0	0	90	9
35	0	23	0	0	0	7	50	0	0	90	9

Number of Residential Trips Generated

Entering

Exiting

31

75

A.M.

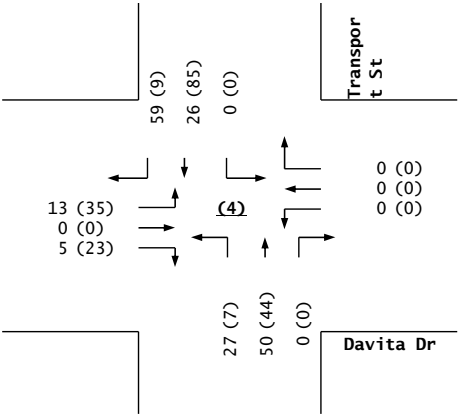
100% Residential Development

77

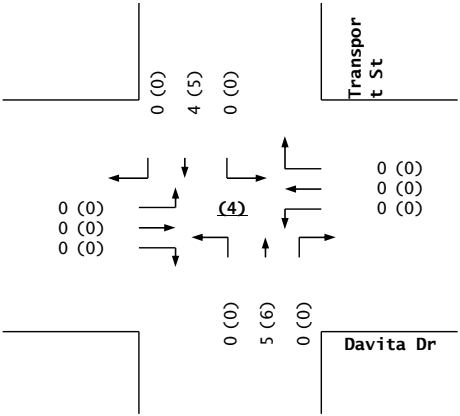
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P.M.

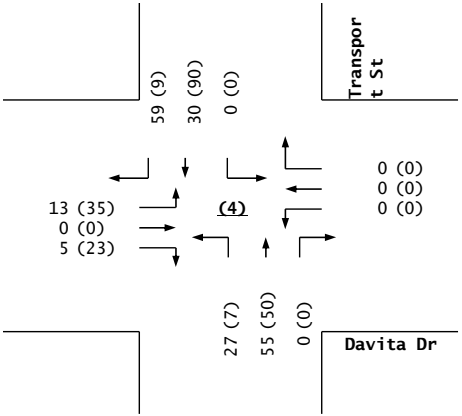
2025  
NO BUILD



Trips



2025  
BUILD





***Transport Apartments (Flightway Ave / University Blvd, NM)***

Projected Turning Movements Worksheet

***Woodward Rd / Driveway "A"***

**INTERSECTION :**

E-W Street: **Woodward Rd**

(5)

N-S Street: **Driveway "A"**

Year of Existing Counts  
Horizon Year

2024

2025

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Driveway "A")			Southbound (Driveway "A")		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	83	0	0	53	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	83	0	0	53	0	0	0	0	0	0	0
4.50%	0.00%	0.00%	0.00%	5.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	3.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	45.50%	0.00%	4.00%
1	3	0	0	2	16	0	0	0	34	0	3
1	86	0	0	55	16	0	0	0	34	0	3
1	86	0	0	55	16	0	0	0	34	0	3

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Driveway "A")			Southbound (Driveway "A")		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	93	0	0	55	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	93	0	0	55	0	0	0	0	0	0	0
4.50%	0.00%	0.00%	0.00%	5.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	3.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	45.50%	0.00%	4.00%
3	2	0	0	4	39	0	0	0	25	0	2
3	95	0	0	59	39	0	0	0	25	0	2
3	95	0	0	59	39	0	0	0	25	0	2

Number of Residential Trips Generated

Entering    Exiting

31

75

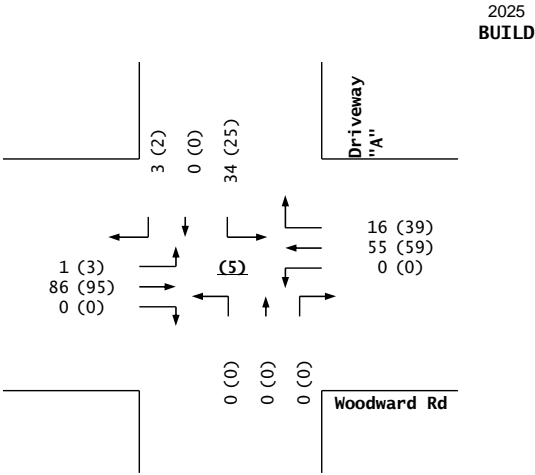
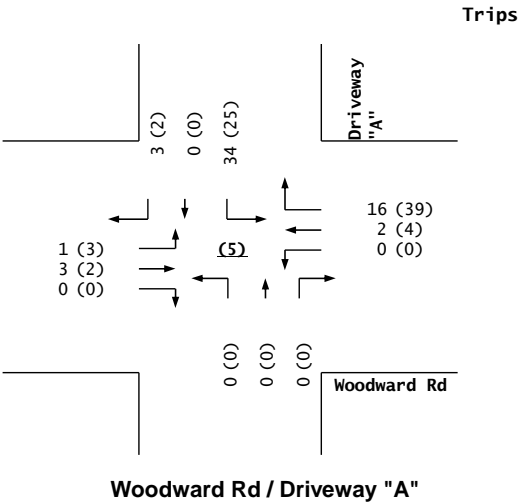
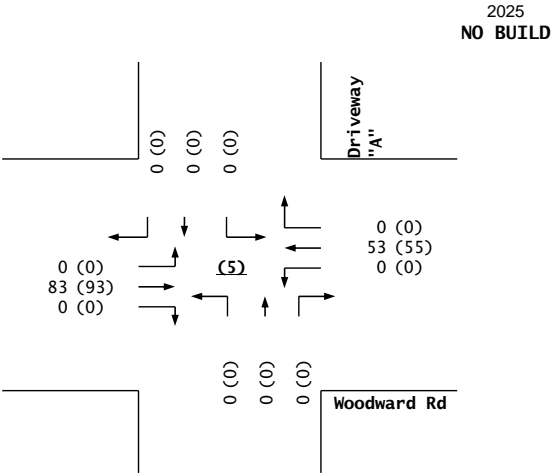
A.M.

100% Residential Development

77

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P.M.



# **Transport Apartments (Flightway Ave / University Blvd, NM)**

## Projected Turning Movements Worksheet

### **Flightway Ave / Driveway "B"**

#### **INTERSECTION :**

E-W Street: **Flightway Ave**

(6)

N-S Street: **Driveway "B"**

Year of Existing Counts  
Horizon Year

2024

2025

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (Driveway "B")			Southbound (Driveway "B")		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	63	0	0	85	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	63	0	0	85	0	0	0	0	0	0	0
0.00%	0.00%	5.50%	40.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	3.50%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	46.50%	0.00%	0.00%	0.00%
0	3	2	12	1	0	3	0	35	0	0	0
0	66	2	12	86	0	3	0	35	0	0	0
0	66	2	12	86	0	3	0	35	0	0	0

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (Driveway "B")			Southbound (Driveway "B")		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	79	0	0	94	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	79	0	0	94	0	0	0	0	0	0	0
0.00%	0.00%	5.50%	40.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	3.50%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	46.50%	0.00%	0.00%	0.00%
0	2	4	31	3	0	2	0	26	0	0	0
0	81	4	31	97	0	2	0	26	0	0	0
0	81	4	31	97	0	2	0	26	0	0	0

Number of Residential Trips Generated

Entering

Exiting

31

75

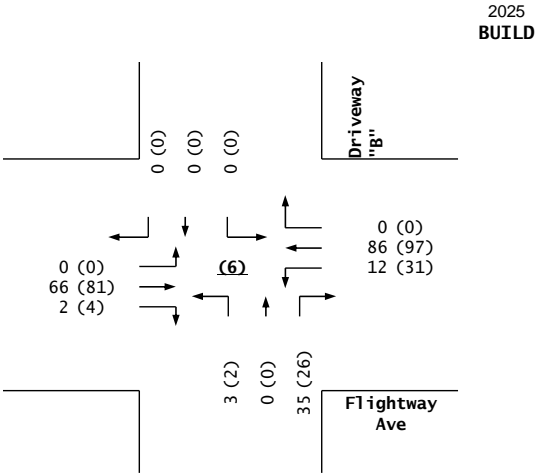
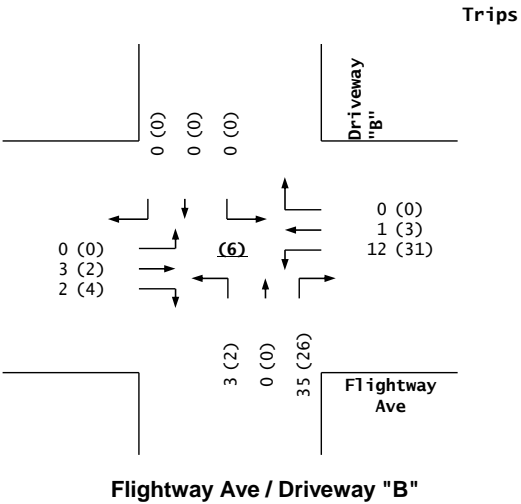
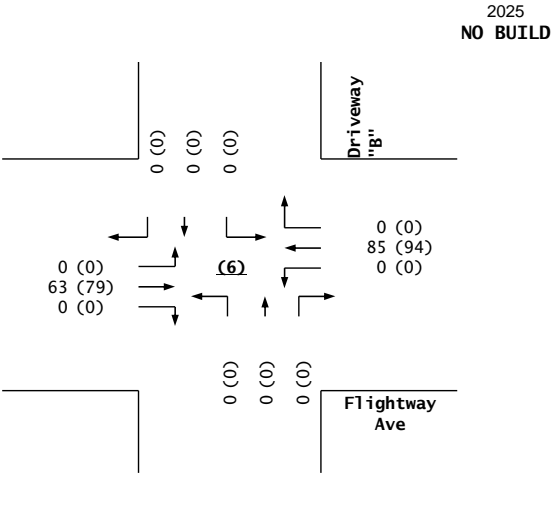
A.M.

100% Residential Development

77

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P.M.



## Appendix 09





## Transport Apartments (Flightway Ave / University Blvd, NM)

### Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2035) - 100% Development

#### INTERSECTION: Summary

Woodward Rd / Transport St													1.00 PHF
(1)	Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Transport St)			Southbound (Transport St)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	0	0	1	0	52	0	1	12	71	0	0	0
	0	0	0	1	0	55	0	1	13	75	0	0	0
2035 (NO BUILD - A.M.)													
2035 (BUILD - A.M.)													

	Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Transport St)			Southbound (Transport St)			1.00 PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	0	0	4	0	51	0	1	11	82	4	0	
	0	0	0	4	0	54	0	1	12	87	4	0	
Existing (2024)													
2035 (NO BUILD - P.M.)													
2035 (BUILD - P.M.)													

Woodward Rd / University Blvd													1.00 PHF
(2)	Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (University Blvd)			Southbound (University Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	55	0	186	0	0	0	106	873	0	0	478	32	
	58	0	196	0	0	0	112	921	0	0	504	34	
Existing (2024)													
2035 (NO BUILD - A.M.)													
2035 (BUILD - A.M.)													

	Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (University Blvd)			Southbound (University Blvd)			1.00 PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	75	0	163	0	0	0	173	587	0	0	836	69	
	79	0	172	0	0	0	183	619	0	0	882	73	
Existing (2024)													
2035 (NO BUILD - P.M.)													
2035 (BUILD - P.M.)													

Flightway Ave / University Blvd													1.00 PHF
(3)	Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (University Blvd)			Southbound (University Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	50	0	35	0	0	0	75	853	0	0	474	40	
	53	0	37	0	0	0	79	900	0	0	500	42	
Existing (2024)													
2035 (NO BUILD - A.M.)													
2035 (BUILD - A.M.)													

	Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (University Blvd)			Southbound (University Blvd)			1.00 PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	62	0	48	0	0	0	40	625	0	0	853	74	
	65	0	51	0	0	0	42	659	0	0	900	78	
Existing (2024)													
2035 (NO BUILD - P.M.)													
2035 (BUILD - P.M.)													

Davita Dr / Transport St													1.00 PHF
(4)	Eastbound (Davita Dr)			Westbound (Davita Dr)			Northbound (Transport St)			Southbound (Transport St)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	13	0	5	0	0	0	27	50	0	0	26	59	
	14	0	5	0	0	0	28	53	0	0	27	62	
Existing (2024)													
2035 (NO BUILD - A.M.)													
2035 (BUILD - A.M.)													

	Eastbound (Davita Dr)			Westbound (Davita Dr)			Northbound (Transport St)			Southbound (Transport St)			1.00 PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	35	0	23	0	0	0	7	44	0	0	85	9	
	37	0	24	0	0	0	7	46	0	0	90	9	
Existing (2024)													
2035 (NO BUILD - P.M.)													
2035 (BUILD - P.M.)													

## Transport Apartments (Flightway Ave / University Blvd, NM)

Projected Turning Movements SUMMARY

**PROPOSED DEVELOPMENT (2035) - 100% Development**

### INTERSECTION: Summary

Woodward Rd / Driveway "A"												
1.00			1.00			1.00			1.00			PHF
(5)	Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Driveway "A")			Southbound (Driveway "A")		
3% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2024)	0	83	0	0	53	0	0	0	0	0	0	0
2035 (NO BUILD - A.M.)	0	88	0	0	56	0	0	0	0	0	0	0
2035 (BUILD - A.M.)	1	91	0	0	58	16	0	0	0	34	0	3
Existing (2024)												
1.00			1.00			1.00			1.00			PHF
Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Driveway "A")			Southbound (Driveway "A")			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	93	0	0	55	0	0	0	0	0	0	0	0
0	98	0	0	58	0	0	0	0	0	0	0	0
3	100	0	0	62	39	0	0	0	25	0	2	
Flightway Ave / Driveway "B"												
1.00			1.00			1.00			1.00			PHF
(6)	Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (Driveway "B")			Southbound (Driveway "B")		
3% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2024)	0	63	0	0	85	0	0	0	0	0	0	0
2035 (NO BUILD - A.M.)	0	66	0	0	90	0	0	0	0	0	0	0
2035 (BUILD - A.M.)	0	69	2	12	91	0	3	0	35	0	0	0
Existing (2024)												
1.00			1.00			1.00			1.00			PHF
Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (Driveway "B")			Southbound (Driveway "B")			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	79	0	0	94	0	0	0	0	0	0	0	0
0	83	0	0	99	0	0	0	0	0	0	0	0
0	85	4	31	102	0	2	0	26	0	0	0	0

**Transport Apartments (Flightway Ave / University Blvd, NM)**

Projected Turning Movements Worksheet

**Woodward Rd / Transport St**

INTERSECTION :

E-W Street: **Woodward Rd**

(1)

N-S Street: **Transport St**

Year of Existing Counts  
Horizon Year

2024

2035

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Transport St)			Southbound (Transport St)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	1	0	52	0	1	12	71	0	0
0	0	0	0	0	3	0	0	1	4	0	0
0	0	0	1	0	55	0	1	13	75	0	0
0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	4.50%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	3.50%	0.00%	0.00%
0	0	0	0	0	5	0	0	0	4	0	0
0	0	0	1	0	60	0	1	13	79	0	0
0	0	0	1	0	60	0	1	13	79	0	0

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Transport St)			Southbound (Transport St)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	4	0	51	0	1	11	82	4	0
0	0	0	0	0	3	0	0	1	5	0	0
0	0	0	4	0	54	0	1	12	87	4	0
0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	4.50%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	3.50%	0.00%	0.00%
0	0	0	0	0	6	0	0	0	5	0	0
0	0	0	4	0	60	0	1	12	92	4	0
0	0	0	4	0	60	0	1	12	92	4	0

Number of Residential Trips Generated

Entering

Exiting

31

75

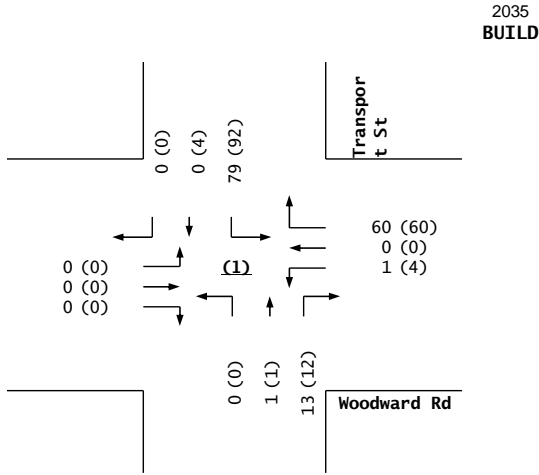
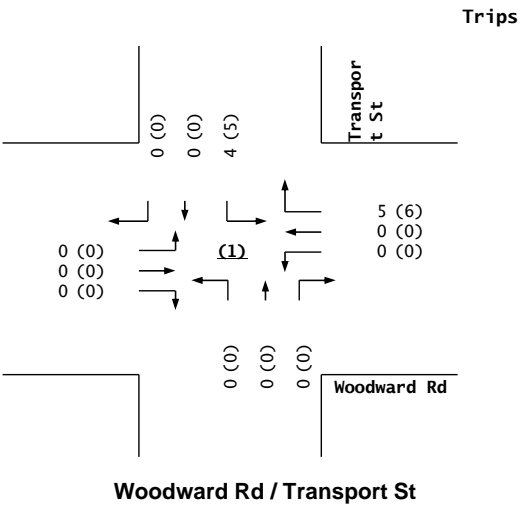
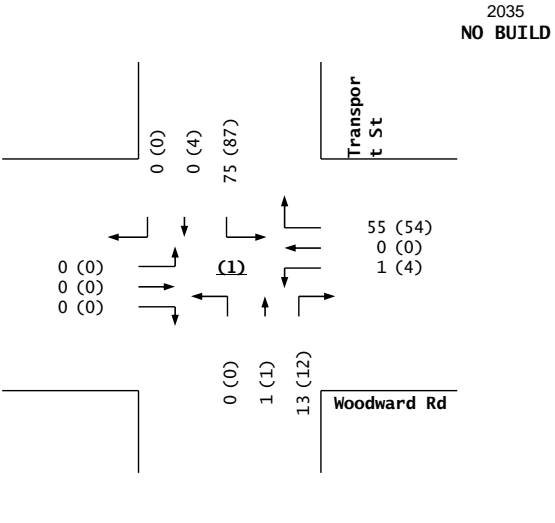
A.M.

100% Residential Development

77

55

P.M.



# *Transport Apartments (Flightway Ave / University Blvd, NM)*

## Projected Turning Movements Worksheet

### **Woodward Rd / University Blvd**

#### INTERSECTION :

E-W Street: **Woodward Rd**

(2)

N-S Street: **University Blvd**

Year of Existing Counts  
Horizon Year

2024

2035

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (University Blvd)			Southbound (University Blvd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
55	0	186	0	0	0	106	873	0	0	478	32
3	0	10	0	0	0	6	48	0	0	26	2
58	0	196	0	0	0	112	921	0	0	504	34
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	14.00%	0.00%	0.00%	0.00%	15.00%
15.00%	0.00%	34.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%
11	0	26	0	0	0	12	4	0	0	15	5
69	0	222	0	0	0	124	925	0	0	519	39
69	0	222	0	0	0	124	925	0	0	519	39

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (University Blvd)			Southbound (University Blvd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
75	0	163	0	0	0	173	587	0	0	836	69
4	0	9	0	0	0	10	32	0	0	46	4
79	0	172	0	0	0	183	619	0	0	882	73
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	14.00%	0.00%	0.00%	0.00%	15.00%
15.00%	0.00%	34.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%
8	0	19	0	0	0	31	11	0	0	11	12
87	0	191	0	0	0	214	630	0	0	893	85
87	0	191	0	0	0	214	630	0	0	893	85

Number of Residential Trips Generated

Entering

Exiting

31

75

A.M.

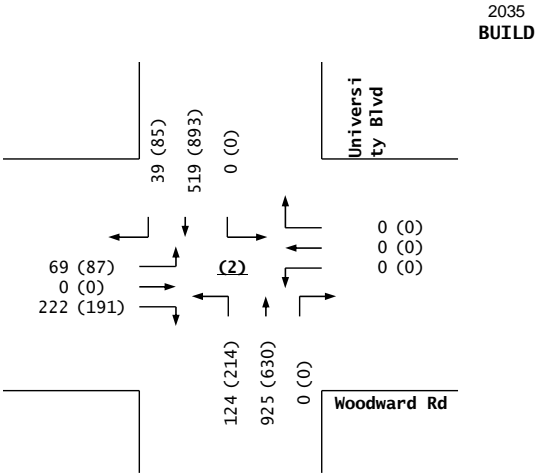
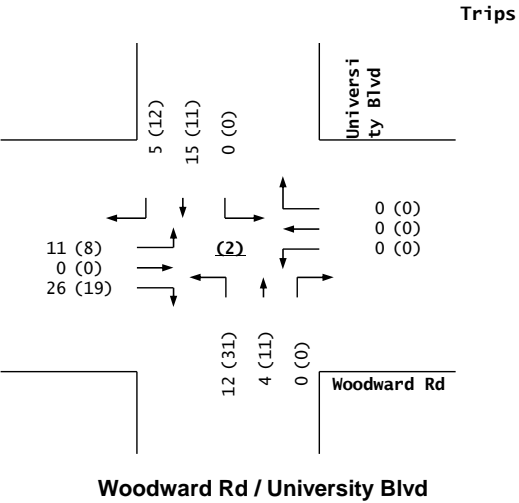
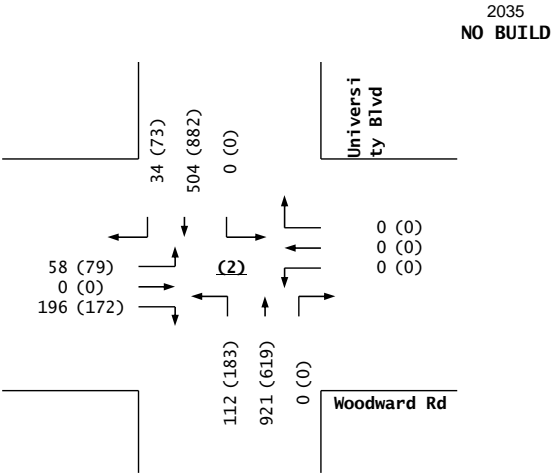
100% Residential Development

77

55

P.M.





### Transport Apartments (Flightway Ave / University Blvd, NM)

#### Projected Turning Movements Worksheet

#### Flightway Ave / University Blvd

**INTERSECTION :**
E-W Street: **Flightway Ave**

(3)

N-S Street: **University Blvd**

Year of Existing Counts

2024

Horizon Year

2035

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes****Total AM Peak Hour BUILD Volumes**

Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (University Blvd)			Southbound (University Blvd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
50	0	35	0	0	0	75	853	0	0	474	40
3	0	2	0	0	0	4	47	0	0	26	2
53	0	37	0	0	0	79	900	0	0	500	42
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.00%	0.00%	0.00%	0.00%	15.00%	30.00%
30.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%
23	0	15	0	0	0	4	11	0	0	5	9
76	0	52	0	0	0	83	911	0	0	505	51
76	0	52	0	0	0	83	911	0	0	505	51

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes****Total PM Peak Hour BUILD Volumes**

Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (University Blvd)			Southbound (University Blvd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
62	0	48	0	0	0	40	625	0	0	853	74
3	0	3	0	0	0	2	34	0	0	47	4
65	0	51	0	0	0	42	659	0	0	900	78
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.00%	0.00%	0.00%	0.00%	15.00%	30.00%
30.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%
17	0	11	0	0	0	11	8	0	0	12	23
82	0	62	0	0	0	53	667	0	0	912	101
82	0	62	0	0	0	53	667	0	0	912	101

Number of Residential Trips Generated

Entering

Exiting

31

75

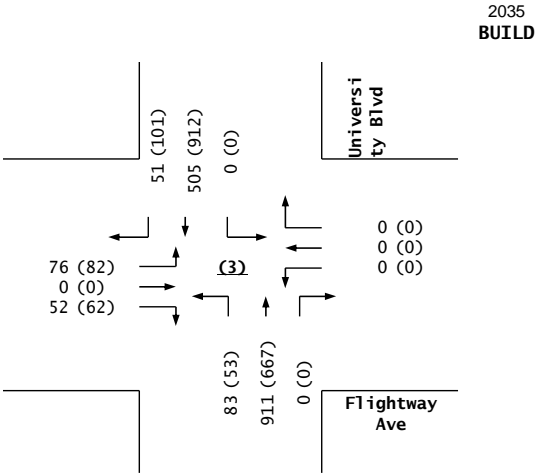
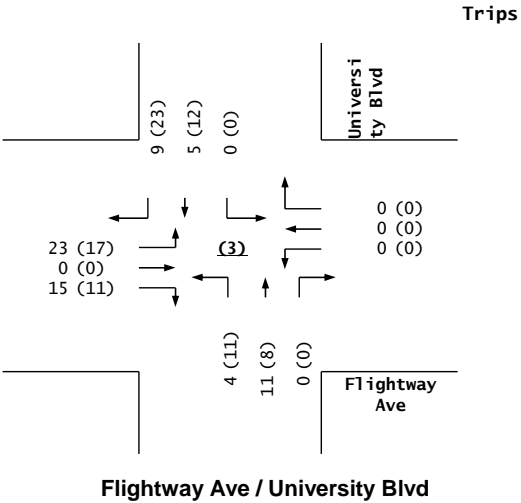
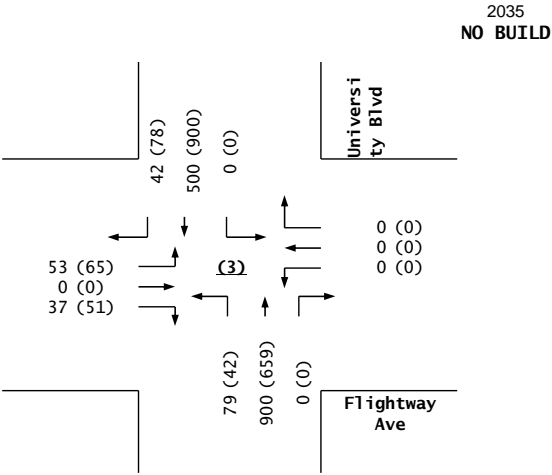
A.M.

100% Residential Development

77

55

P.M.



# *Transport Apartments (Flightway Ave / University Blvd, NM)*

Projected Turning Movements Worksheet

## **Davita Dr / Transport St**

INTERSECTION :

E-W Street: **Davita Dr**

(4)

N-S Street: **Transport St**

Year of Existing Counts  
Horizon Year

2024

2035

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Davita Dr)			Westbound (Davita Dr)			Northbound (Transport St)			Southbound (Transport St)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
13	0	5	0	0	0	27	50	0	0	26	59
1	0	0	0	0	0	1	3	0	0	1	3
14	0	5	0	0	0	28	53	0	0	27	62
0.50%	0.00%	0.50%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	4.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.50%	3.50%	0.00%	0.00%	3.50%	0.50%
0	0	0	0	0	0	0	5	0	0	4	0
14	0	5	0	0	0	28	58	0	0	31	62
14	0	5	0	0	0	28	58	0	0	31	62

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Davita Dr)			Westbound (Davita Dr)			Northbound (Transport St)			Southbound (Transport St)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
35	0	23	0	0	0	7	44	0	0	85	9
2	0	1	0	0	0	0	2	0	0	5	0
37	0	24	0	0	0	7	46	0	0	90	9
0.50%	0.00%	0.50%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	4.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.50%	3.50%	0.00%	0.00%	3.50%	0.50%
0	0	0	0	0	0	0	6	0	0	5	0
37	0	24	0	0	0	7	52	0	0	95	9
37	0	24	0	0	0	7	52	0	0	95	9

Number of Residential Trips Generated

Entering

Exiting

31

75

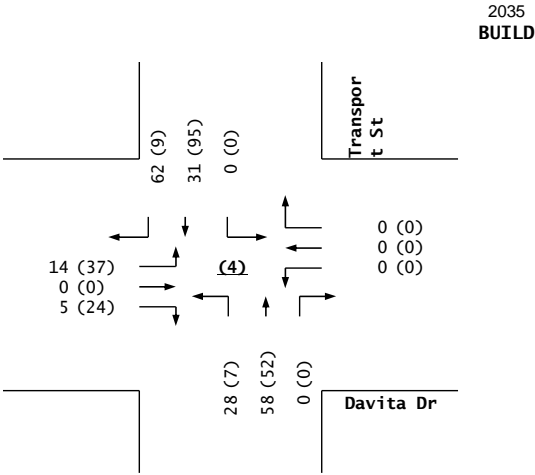
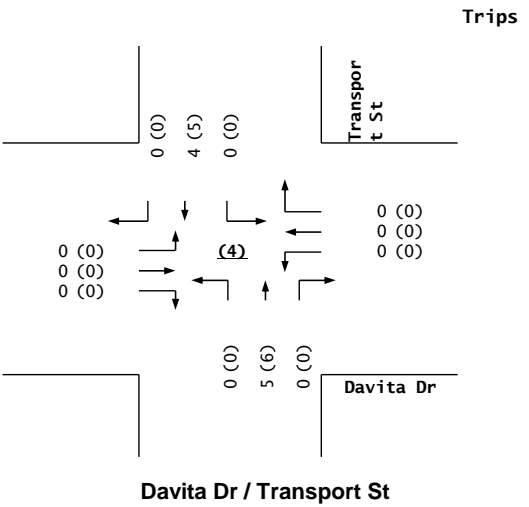
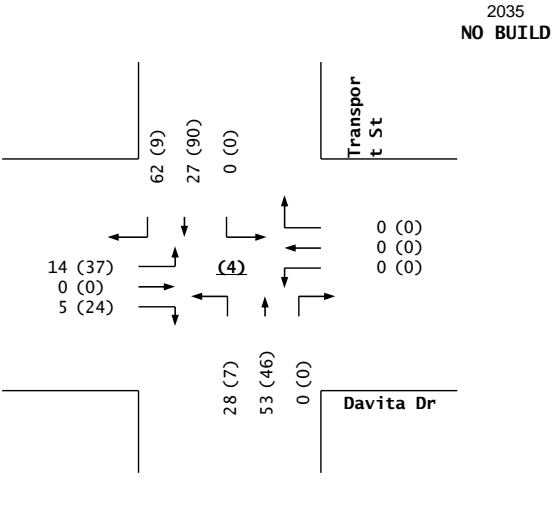
A.M.

100% Residential Development

77

55

P.M.



**Transport Apartments (Flightway Ave / University Blvd, NM)**

Projected Turning Movements Worksheet

**Woodward Rd / Driveway "A"**

INTERSECTION :

E-W Street: **Woodward Rd**

(5)

N-S Street: **Driveway "A"**

Year of Existing Counts  
Horizon Year

2024

2035

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

**Total AM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Driveway "A")			Southbound (Driveway "A")		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	83	0	0	53	0	0	0	0	0	0	0
0	5	0	0	3	0	0	0	0	0	0	0
0	88	0	0	56	0	0	0	0	0	0	0
4.50%	0.00%	0.00%	0.00%	5.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	3.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	45.50%	0.00%	4.00%
1	3	0	0	2	16	0	0	0	34	0	3
1	91	0	0	58	16	0	0	0	34	0	3
1	91	0	0	58	16	0	0	0	34	0	3

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

**Total PM Peak Hour BUILD Volumes**

Eastbound (Woodward Rd)			Westbound (Woodward Rd)			Northbound (Driveway "A")			Southbound (Driveway "A")		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	93	0	0	55	0	0	0	0	0	0	0
0	5	0	0	3	0	0	0	0	0	0	0
0	98	0	0	58	0	0	0	0	0	0	0
4.50%	0.00%	0.00%	0.00%	5.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	3.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	45.50%	0.00%	4.00%
3	2	0	0	4	39	0	0	0	25	0	2
3	100	0	0	62	39	0	0	0	25	0	2
3	100	0	0	62	39	0	0	0	25	0	2

Number of Residential Trips Generated

Entering    Exiting

31

75

A.M.

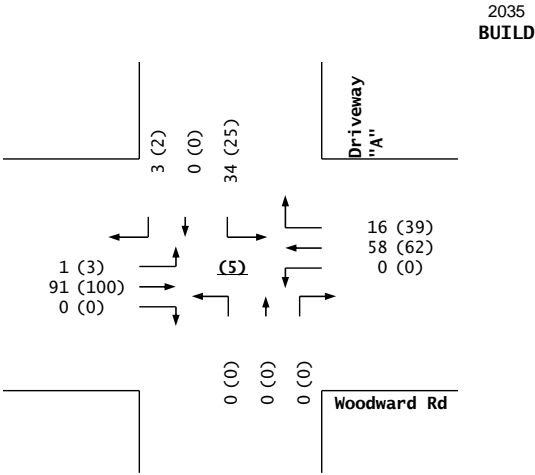
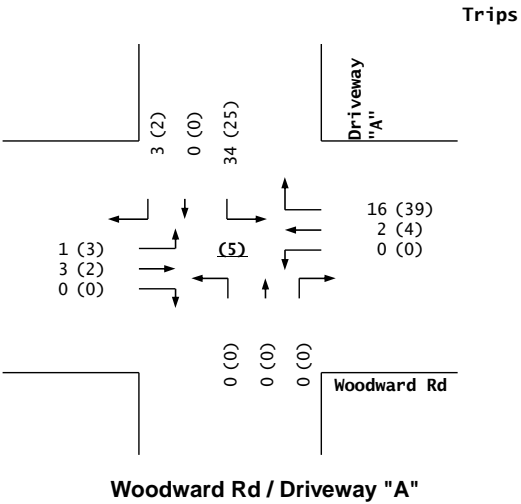
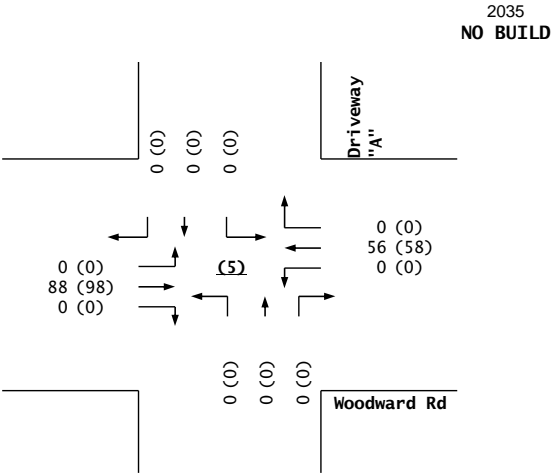
100% Residential Development

77

55

P.M.





# *Transport Apartments (Flightway Ave / University Blvd, NM)*

## Projected Turning Movements Worksheet

### ***Flightway Ave / Driveway "B"***

#### INTERSECTION :

E-W Street: **Flightway Ave** (6)  
N-S Street: **Driveway "B"**

Year of Existing Counts  
Horizon Year

2024  
2035

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - A.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal AM Pk Hr. BUILD Volumes**

Pass-by Trip Adjustments

**Total AM Peak Hour BUILD Volumes**

Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (Driveway "B")			Southbound (Driveway "B")		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	63	0	0	85	0	0	0	0	0	0	0
0	3	0	0	5	0	0	0	0	0	0	0
0	66	0	0	90	0	0	0	0	0	0	0
0.00%	0.00%	5.50%	40.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	3.50%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	46.50%	0.00%	0.00%	0.00%
0	3	2	12	1	0	3	0	35	0	0	0
0	69	2	12	91	0	3	0	35	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	69	2	12	91	0	3	0	35	0	0	0

Existing Volumes

Background Traffic Growth

**Subtotal (NO BUILD - P.M.)**

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

**Subtotal PM Pk Hr. BUILD Volumes**

Pass-by Trip Adjustments

**Total PM Peak Hour BUILD Volumes**

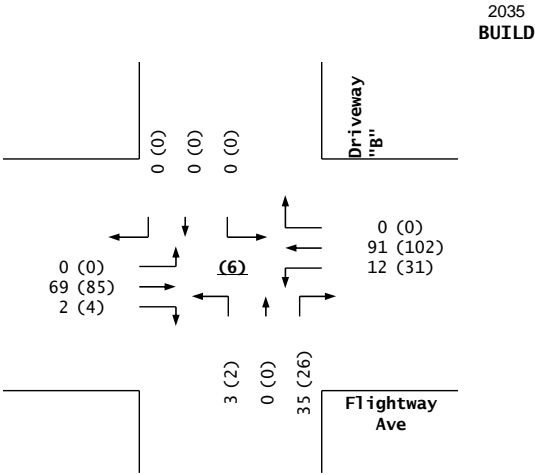
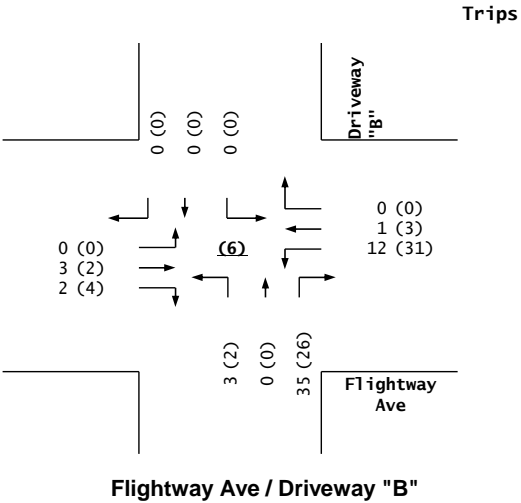
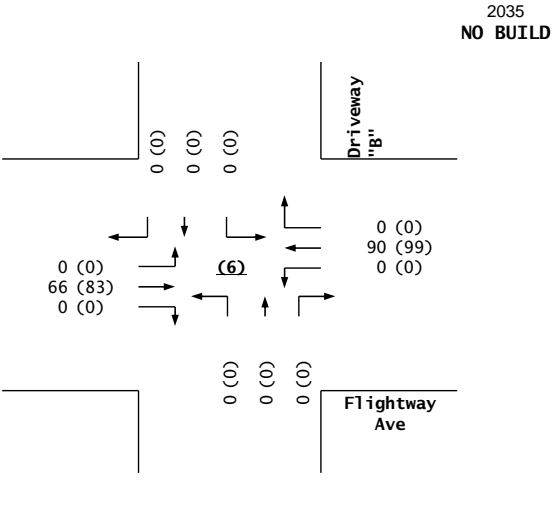
Eastbound (Flightway Ave)			Westbound (Flightway Ave)			Northbound (Driveway "B")			Southbound (Driveway "B")		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	79	0	0	94	0	0	0	0	0	0	0
0	4	0	0	5	0	0	0	0	0	0	0
0	83	0	0	99	0	0	0	0	0	0	0
0.00%	0.00%	5.50%	40.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	3.50%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	46.50%	0.00%	0.00%	0.00%
0	2	4	31	3	0	2	0	26	0	0	0
0	85	4	31	102	0	2	0	26	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	85	4	31	102	0	2	0	26	0	0	0

Number of Residential Trips Generated

Entering  
31  
77

Exiting  
75  
55

A.M.  
P.M.  
100% Residential Development







## Appendix 10



# HCM 7th TWSC

## 1: University Blvd SE & Flightway Ave

06/03/2024

Intersection							
Int Delay, s/veh	1.4						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	50	35	1	75	857	476	40
Future Vol, veh/h	50	35	1	75	857	476	40
Conflicting Peds, #/hr	3	3	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	175	-	-	-
Veh in Median Storage, #	1	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	0	5	1	3	5
Mvmt Flow	54	38	1	82	932	517	43

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	1173	283	561	561	0	-	0
Stage 1	539	-	-	-	-	-	-
Stage 2	634	-	-	-	-	-	-
Critical Hdwy	6.84	7.18	6.4	4.2	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.44	2.5	2.25	-	-	-
Pot Cap-1 Maneuver	185	679	641	986	-	-	-
Stage 1	549	-	-	-	-	-	-
Stage 2	491	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	175	677	978	978	-	-	-
Mov Cap-2 Maneuver	310	-	-	-	-	-	-
Stage 1	520	-	-	-	-	-	-
Stage 2	491	-	-	-	-	-	-






Approach	EB	NB	SB
HCM Control Delay, s/v	16.7	0.73	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	978	-	400	-	-
HCM Lane V/C Ratio	0.084	-	0.231	-	-
HCM Control Delay (s/veh)	9	-	16.7	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.9	-	-

# HCM 7th TWSC

## 1: University Blvd SE & Flightway Ave

06/05/2024

Intersection							
Int Delay, s/veh	1.9						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	73	50	1	79	868	481	49
Future Vol, veh/h	73	50	1	79	868	481	49
Conflicting Peds, #/hr	3	3	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	175	-	-	-
Veh in Median Storage, #	1	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	0	5	1	3	5
Mvmt Flow	79	54	1	86	943	523	53

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1198	291	576	576	0	0
Stage 1	549	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Critical Hdwy	6.84	7.18	6.4	4.2	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.44	2.5	2.25	-	-
Pot Cap-1 Maneuver	178	671	627	973	-	-
Stage 1	542	-	-	-	-	-
Stage 2	482	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	168	669	965	965	-	-
Mov Cap-2 Maneuver	303	-	-	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	482	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v18.97		0.77	0
HCM LOS	C		





Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	390	-	-
HCM Lane V/C Ratio	0.09	-	0.343	-	-
HCM Control Delay (s/veh)	9.1	-	19	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.5	-	-



# HCM 7th TWSC

## 1: University Blvd SE & Flightway Ave





06/03/2024

Intersection								
Int Delay, s/veh	1.8							
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR	
Lane Configurations								
Traffic Vol, veh/h	62	48	2	40	625	857	74	
Future Vol, veh/h	62	48	2	40	625	857	74	
Conflicting Peds, #/hr	6	6	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	
RT Channelized	-	None	-	-	None	-	None	
Storage Length	0	-	-	175	-	-	-	
Veh in Median Storage, #	1	-	-	-	0	0	-	
Grade, %	0	-	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	
Heavy Vehicles, %	0	2	0	8	1	1	5	
Mvmt Flow	67	52	2	43	679	932	80	
Major/Minor	Minor2	Major1		Major2				
Conflicting Flow All	1409	512	1012	1012	0	-	0	
Stage 1	972	-	-	-	-	-	-	
Stage 2	437	-	-	-	-	-	-	
Critical Hdwy	6.8	6.94	6.4	4.26	-	-	-	
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-	
Follow-up Hdwy	3.5	3.32	2.5	2.28	-	-	-	
Pot Cap-1 Maneuver	132	507	332	646	-	-	-	
Stage 1	332	-	-	-	-	-	-	
Stage 2	624	-	-	-	-	-	-	
Platoon blocked, %					-	-	-	
Mov Cap-1 Maneuver	126	504	612	612	-	-	-	
Mov Cap-2 Maneuver	241	-	-	-	-	-	-	
Stage 1	316	-	-	-	-	-	-	
Stage 2	624	-	-	-	-	-	-	
Approach	EB	NB		SB				
HCM Control Delay, s/v23.57		0.72		0				
HCM LOS	C							
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR			
Capacity (veh/h)	612	-	312	-	-			
HCM Lane V/C Ratio	0.075	-	0.384	-	-			
HCM Control Delay (s/veh)	11.4	-	23.6	-	-			
HCM Lane LOS	B	-	C	-	-			
HCM 95th %tile Q(veh)	0.2	-	1.7	-	-			

# HCM 7th TWSC

## 1: University Blvd SE & Flightway Ave

06/05/2024

Intersection							
Int Delay, s/veh	2.6						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	79	59	2	51	636	869	97
Future Vol, veh/h	79	59	2	51	636	869	97
Conflicting Peds, #/hr	6	6	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	175	-	-	-
Veh in Median Storage, #	1	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	8	1	1	5
Mvmt Flow	86	64	2	55	691	945	105

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	1464	531	1050	1050	0	-	0
Stage 1	997	-	-	-	-	-	-
Stage 2	467	-	-	-	-	-	-
Critical Hdwy	6.8	6.94	6.4	4.26	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.32	2.5	2.28	-	-	-
Pot Cap-1 Maneuver	121	493	314	624	-	-	-
Stage 1	322	-	-	-	-	-	-
Stage 2	603	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	114	490	595	595	-	-	-
Mov Cap-2 Maneuver	228	-	-	-	-	-	-
Stage 1	301	-	-	-	-	-	-
Stage 2	603	-	-	-	-	-	-






Approach	EB	NB	SB
HCM Control Delay, s/v29.15		0.9	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	595	-	295	-	-
HCM Lane V/C Ratio	0.097	-	0.508	-	-
HCM Control Delay (s/veh)	11.7	-	29.1	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.3	-	2.7	-	-

# HCM 7th TWSC

## 2: University Blvd SE & Woodward Rd SE

06/05/2024

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	66	213	119	881	495	37
Future Vol, veh/h	66	213	119	881	495	37
Conflicting Peds, #/hr	2	2	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	245	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	2	2	4	0
Mvmt Flow	72	232	129	958	538	40
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1298	291	578	0	-	0
Stage 1	558	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.14	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.22	-	-	-
Pot Cap-1 Maneuver	152	702	991	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	430	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	132	701	991	-	-	-
Mov Cap-2 Maneuver	264	-	-	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	430	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v22.37		1.09		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	991	-	504	-	-	
HCM Lane V/C Ratio	0.13	-	0.602	-	-	
HCM Control Delay (s/veh)	9.2	-	22.4	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0.4	-	3.9	-	-	

HCM 7th TWSC  
2: University Blvd SE & Woodward Rd SE

06/03/2024

Intersection								
Int Delay, s/veh	7							
Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations		W			W	↑↑	↑↑	
Traffic Vol, veh/h	1	75	164	8	166	590	840	69
Future Vol, veh/h	1	75	164	8	166	590	840	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	None
Storage Length	-	0	-	-	245	-	-	-
Veh in Median Storage, #	-	1	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	2	1	1	0
Mvmt Flow	1	82	178	9	180	641	913	75

Major/Minor	Minor2	Major1			Major2		
Conflicting Flow All	0	1649	494	988	988	0	0
Stage 1	0	951	-	-	-	-	-
Stage 2	0	699	-	-	-	-	-
Critical Hdwy	-	6.82	6.94	6.4	4.14	-	-
Critical Hdwy Stg 1	-	5.82	-	-	-	-	-
Critical Hdwy Stg 2	-	5.82	-	-	-	-	-
Follow-up Hdwy	-	3.51	3.32	2.5	2.22	-	-
Pot Cap-1 Maneuver	0	91	521	344	695	-	-
Stage 1	0	338	-	-	-	-	-
Stage 2	0	457	-	-	-	-	-
Platoon blocked, %	-					-	-
Mov Cap-1 Maneuver	0	~ 72	521	635	635	-	-
Mov Cap-2 Maneuver	0	185	-	-	-	-	-
Stage 1	0	269	-	-	-	-	-
Stage 2	0	457	-	-	-	-	-






Approach	EB	NB	SB
HCM Control Delay, s/v45.93		2.98	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	635	-	331	-	-
HCM Lane V/C Ratio	0.298	-	0.784	-	-
HCM Control Delay (s/veh)	13.1	-	45.9	-	-
HCM Lane LOS	B	-	E	-	-
HCM 95th %tile Q(veh)	1.2	-	6.4	-	-

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

HCM 7th TWSC  
2: University Blvd SE & Woodward Rd SE

06/03/2024

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	55	187	107	877	480	32
Future Vol, veh/h	55	187	107	877	480	32
Conflicting Peds, #/hr	2	2	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	245	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	2	2	4	0
Mvmt Flow	60	203	116	953	522	35

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1250	280	557	0	-	0
Stage 1	539	-	-	-	-	-
Stage 2	711	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.14	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.22	-	-	-
Pot Cap-1 Maneuver	163	714	1010	-	-	-
Stage 1	546	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	145	713	1010	-	-	-
Mov Cap-2 Maneuver	277	-	-	-	-	-
Stage 1	483	-	-	-	-	-
Stage 2	445	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v18.54		0.98	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1010	-	525	-	-
HCM Lane V/C Ratio	0.115	-	0.501	-	-
HCM Control Delay (s/veh)	9	-	18.5	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	2.8	-	-

HCM 7th TWSC  
2: University Blvd SE & Woodward Rd SE

06/05/2024

Intersection								
Int Delay, s/veh	11.1							
Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations		W			W	↑↑	↑↑	
Traffic Vol, veh/h	1	83	183	10	195	601	851	81
Future Vol, veh/h	1	83	183	10	195	601	851	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	None
Storage Length	-	0	-	-	245	-	-	-
Veh in Median Storage, #	-	1	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	2	1	1	0
Mvmt Flow	1	90	199	11	212	653	925	88

Major/Minor	Minor2	Major1			Major2		
Conflicting Flow All	0	1741	507	1013	1013	0	0
Stage 1	0	969	-	-	-	-	-
Stage 2	0	772	-	-	-	-	-
Critical Hdwy	-	6.82	6.94	6.4	4.14	-	-
Critical Hdwy Stg 1	-	5.82	-	-	-	-	-
Critical Hdwy Stg 2	-	5.82	-	-	-	-	-
Follow-up Hdwy	-	3.51	3.32	2.5	2.22	-	-
Pot Cap-1 Maneuver	0	~ 79	511	331	680	-	-
Stage 1	0	331	-	-	-	-	-
Stage 2	0	419	-	-	-	-	-
Platoon blocked, %	-					-	-
Mov Cap-1 Maneuver	0	~ 59	511	610	610	-	-
Mov Cap-2 Maneuver	0	167	-	-	-	-	-
Stage 1	0	247	-	-	-	-	-
Stage 2	0	419	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v72.32		3.63	0
HCM LOS	F		





Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	610	-	311	-	-
HCM Lane V/C Ratio	0.365	-	0.93	-	-
HCM Control Delay (s/veh)	14.3	-	72.3	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	1.7	-	9.1	-	-

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



**Intersection**





Int Delay, s/veh 7.1





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	1	0	52	0	1	12	71	0	0
Future Vol, veh/h	0	0	0	1	0	52	0	1	12	71	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	6	6	6	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	1	0	57	0	1	13	77	0	0





Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	157	172	2	164	166	10	2	0	0	16	0	0
Stage 1	156	156	-	10	10	-	-	-	-	-	-	-
Stage 2	1	16	-	154	156	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	800	714	1071	805	730	1078	1634	-	-	1615	-	-
Stage 1	837	761	-	1017	892	-	-	-	-	-	-	-
Stage 2	1012	874	-	853	772	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	720	677	1069	765	693	1076	1631	-	-	1611	-	-
Mov Cap-2 Maneuver	720	677	-	765	693	-	-	-	-	-	-	-
Stage 1	795	723	-	1015	890	-	-	-	-	-	-	-
Stage 2	958	872	-	812	734	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	0		8.56		0		7.35	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1631	-	-	-	1068	1611	-
HCM Lane V/C Ratio	-	-	-	-	0.054	0.048	-
HCM Control Delay (s/veh)	0	-	-	0	8.6	7.3	0
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2	-




Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	1	0	57	0	1	12	75	0	0
Future Vol, veh/h	0	0	0	1	0	57	0	1	12	75	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	6	6	6	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	1	0	62	0	1	13	82	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	166	181	2	173	175	10	2	0	0	16	0	0
Stage 1	165	165	-	10	10	-	-	-	-	-	-	-
Stage 2	1	16	-	163	165	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	789	706	1071	795	722	1078	1634	-	-	1615	-	-
Stage 1	828	754	-	1017	892	-	-	-	-	-	-	-
Stage 2	1012	874	-	844	766	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	705	667	1069	753	683	1076	1631	-	-	1611	-	-
Mov Cap-2 Maneuver	705	667	-	753	683	-	-	-	-	-	-	-
Stage 1	784	715	-	1015	890	-	-	-	-	-	-	-
Stage 2	953	872	-	801	725	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	0		8.58		0		7.35					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1631	-	-	-	1068	1611	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.059	0.051	-	-				
HCM Control Delay (s/veh)	0	-	-	0	8.6	7.4	0	-				
HCM Lane LOS	A	-	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2	-	-				

Intersection													
Int Delay, s/veh	7.1												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	2	2	0	51	0	1	11	82	4	0
Future Vol, veh/h	0	0	0	2	2	0	51	0	1	11	82	4	0
Conflicting Peds, #/hr	2	0	2	1	1	0	1	2	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
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	92
Heavy Vehicles, %	0	0	0	0	0	0	2	0	0	0	6	0	0
Mvmt Flow	0	0	0	2	2	0	55	0	1	12	89	4	0
Major/Minor	Minor2		Minor1		Major1		Major2						
Conflicting Flow All	188	200	8	0	194	194	11	6	0	0	15	0	0
Stage 1	185	185	-	0	9	9	-	-	-	-	-	-	-
Stage 2	3	15	-	0	185	185	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	-	7.1	6.5	6.22	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	3.5	4	3.318	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	777	700	1079	0	770	705	1070	1628	-	-	1577	-	-
Stage 1	822	751	-	0	1017	892	-	-	-	-	-	-	-
Stage 2	1025	887	-	0	822	751	-	-	-	-	-	-	-
Platoon blocked, %				-					-	-		-	-
Mov Cap-1 Maneuver	692	658	1075	0	724	663	1066	1625	-	-	1574	-	-
Mov Cap-2 Maneuver	692	658	-	0	724	663	-	-	-	-	-	-	-
Stage 1	774	707	-	0	1015	890	-	-	-	-	-	-	-
Stage 2	970	885	-	0	774	707	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB						
HCM Control Delay, s/v	0		8.65		0		7.08						
HCM LOS	A		A										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1625	-	-	-	1047	1570	-	-					
HCM Lane V/C Ratio	-	-	-	-	0.057	0.057	-	-					
HCM Control Delay (s/veh)	0	-	-	0	8.6	7.4	0	-					
HCM Lane LOS	A	-	-	A	A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2	-	-					

Intersection													
Int Delay, s/veh	7.2												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	2	2	0	57	0	1	11	87	4	0
Future Vol, veh/h	0	0	0	2	2	0	57	0	1	11	87	4	0
Conflicting Peds, #/hr	2	0	2	1	1	0	1	2	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
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	92
Heavy Vehicles, %	0	0	0	0	0	0	2	0	0	0	6	0	0
Mvmt Flow	0	0	0	2	2	0	62	0	1	12	95	4	0
Major/Minor	Minor2		Minor1			Major1			Major2				
Conflicting Flow All	199	211	8	0	205	205	11	6	0	0	15	0	0
Stage 1	195	195	-	0	9	9	-	-	-	-	-	-	-
Stage 2	3	15	-	0	195	195	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	-	7.1	6.5	6.22	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	3.5	4	3.318	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	765	690	1079	0	758	695	1070	1628	-	-	1577	-	-
Stage 1	811	743	-	0	1017	892	-	-	-	-	-	-	-
Stage 2	1025	887	-	0	811	743	-	-	-	-	-	-	-
Platoon blocked, %				-					-	-		-	-
Mov Cap-1 Maneuver	674	646	1075	0	709	651	1066	1625	-	-	1574	-	-
Mov Cap-2 Maneuver	674	646	-	0	709	651	-	-	-	-	-	-	-
Stage 1	761	697	-	0	1015	890	-	-	-	-	-	-	-
Stage 2	963	885	-	0	761	697	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB				
HCM Control Delay, s/v	0		8.67			0			7.11				
HCM LOS	A		A										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1625	-	-	-	1048	1570	-	-					
HCM Lane V/C Ratio	-	-	-	-	0.063	0.06	-	-					
HCM Control Delay (s/veh)	0	-	-	0	8.7	7.4	0	-					
HCM Lane LOS	A	-	-	A	A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2	-	-					




HCM 7th TWSC  
5: Woodward Rd SE & Driveway "A"

06/05/2024

Intersection						
Int Delay, s/veh	1.8					
Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	34	3	1	86	55	16
Future Vol, veh/h	34	3	1	86	55	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	37	3	1	93	60	17
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	164	68	77	0	-	0
Stage 1	68	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	831	1000	1534	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	831	1000	1534	-	-	-
Mov Cap-2 Maneuver	831	-	-	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Approach	SB	NE		SW		
HCM Control Delay, s/v	9.49	0.08		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR	
Capacity (veh/h)	21	-	842	-	-	
HCM Lane V/C Ratio	0.001	-	0.048	-	-	
HCM Control Delay (s/veh)	7.3	0	9.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

HCM 7th TWSC  
5: Woodward Rd SE & Driveway "A"




06/05/2024

Intersection						
Int Delay, s/veh	1.3					
Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	25	2	3	95	59	39
Future Vol, veh/h	25	2	3	95	59	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	2	3	103	64	42
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	195	85	107	0	-	0
Stage 1	85	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	798	979	1497	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	796	979	1497	-	-	-
Mov Cap-2 Maneuver	796	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Approach	SB	NE		SW		
HCM Control Delay, s/v	9.63	0.23		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR	
Capacity (veh/h)	55	-	808	-	-	
HCM Lane V/C Ratio	0.002	-	0.036	-	-	
HCM Control Delay (s/veh)	7.4	0	9.6	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	






HCM 7th TWSC  
6: Driveway "B" & Flightway Ave

06/05/2024

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	2	12	86	3	35
Future Vol, veh/h	66	2	12	86	3	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	72	2	13	93	3	38
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	74	0	192	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1538	-	801	995
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1538	-	794	995
Mov Cap-2 Maneuver	-	-	-	-	794	-
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	902	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		0.9		8.85	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	975	-	-	220	-	
HCM Lane V/C Ratio	0.042	-	-	0.008	-	
HCM Control Delay (s/veh)	8.9	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 7th TWSC  
6: Driveway "B" & Flightway Ave

06/05/2024

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	81	4	31	97	2	26
Future Vol, veh/h	81	4	31	97	2	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	88	4	34	105	2	28
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	92	0	263	90
Stage 1	-	-	-	-	90	-
Stage 2	-	-	-	-	173	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1515	-	730	973
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	862	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1515	-	713	973
Mov Cap-2 Maneuver	-	-	-	-	713	-
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	842	-
Approach	EB	WB		NB		
HCM Control Delay, s/v	0	1.8		8.92		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	948	-	-	436	-	
HCM Lane V/C Ratio	0.032	-	-	0.022	-	
HCM Control Delay (s/veh)	8.9	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

## Synchro Results Summary Sheet

1: Flightway Ave./University Blvd

2025\_Conditions

Flightway Ave.

University Blvd.

Signalized

Flightway Ave. / University Blvd. 2025_Conditions	EB (Flightway Ave.)			NB (University Blvd.)			SB (University Blvd.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1>	0	0	<1	2	0	0	2>	0
AM Peak Hour									
2025_NO BUILD Volumes	50		35	76	857			476	40
V/C Ratio	0.23			0.08					
Level-of-Service	C			A					
Control Delay (Seconds)	16.7		0.0	9.0	0.0			0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	0.9		0.0	0.3	0.0			0.2	0.0
2025_BUILD Volumes	73		50	80	868			481	49
V/C Ratio	0.34			0.09					
Level-of-Service	C			A					
Control Delay (Seconds)	19.0		0.0	9.1	0.0			0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	1.5		0.0	0.3	0.0			0.0	0.0

PM Peak Hour

2025_NO BUILD Volumes	62		48	42	625			857	74
V/C Ratio	0.38			0.08					
Level-of-Service	C			B					
Control Delay (Seconds)	23.6		0.0	11.4	0.0			0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	1.7		0.0	0.2	0.0			0.0	0.0
2025_BUILD Volumes	79		59	53	636			869	97
V/C Ratio	0.51			0.10					
Level-of-Service	D			B					
Control Delay (Seconds)	29.1		0.0	11.7	0.0			0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	2.7		0.0	0.3	0.0			0.0	0.0

## Synchro Results Summary Sheet

2: Woodward Rd./University Blvd.

2025\_Conditions

Woodward Rd.

University Blvd.

Signalized

Woodward Rd. / University Blvd. 2025_Conditions	EB (Woodward Rd.)			NB (University Blvd.)			SB (University Blvd.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1>	0	0	1	2	0	0	2>	0
AM Peak Hour									
2025_NO BUILD Volumes	55		187	107	877			480	32
V/C Ratio	0.50			0.12					
Level-of-Service	C			A					
Control Delay (Seconds)	18.5		0.0	9.0				0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	2.8		0.0	0.4	0.0			0.0	0.0
2025_BUILD Volumes	66		213	119	881			495	37
V/C Ratio	0.60			0.13					
Level-of-Service	C			A					
Control Delay (Seconds)	22.4		0.0	9.2				0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	3.9		0.0	0.4	0.0			0.0	0.0

PM Peak Hour

2025_NO BUILD Volumes	76		164	174	590			840	69
V/C Ratio	0.78			0.30					
Level-of-Service	E			B					
Control Delay (Seconds)	45.9		0.0	13.1				0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	6.4		0.0	1.2	0.0			0.0	0.0
2025_BUILD Volumes	84		183	205	601			851	81
V/C Ratio	0.93			0.37					
Level-of-Service	F			B					
Control Delay (Seconds)	72.3		0.0	14.3				0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	9.1		0.0	1.7	0.0			0.0	0.0

## Synchro Results Summary Sheet

3: Woodward Rd./Transport St.

2025\_Conditions

Woodward Rd.

Transport St.

Signalized

Woodward Rd. / Transport St. 2025_Conditions	EB (Woodward Rd.)			WB (Woodward Rd.)			NB (Transport St.)			SB (Transport St.)		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	0	<1>	0	0	<1>	0	0	<1>	0	0	<1>	0
AM Peak Hour												
2025_NO BUILD Volumes	0	0	0	1	0	52	0	1	12	71	0	0
V/C Ratio	0.00			0.05			0.00			0.05		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0
Intersection LOS	TWSC											
95th Percentile Queue (veh)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
2025_BUILD Volumes	0	0	0	1	0	57	0	1	12	75	0	0
V/C Ratio	0.00			0.06						0.05		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0
Intersection LOS	TWSC											
95th Percentile Queue (veh)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

PM Peak Hour

2025_NO BUILD Volumes	0	0	0	4	0	51	0	1	11	82	4	0
V/C Ratio	0.00			0.06			0.00			0.06		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0
Intersection LOS	TWSC											
95th Percentile Queue (veh)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
2025_BUILD Volumes	0	0	0	4	0	57	0	1	11	87	4	0
V/C Ratio	0.00			0.06			0.00			0.06		
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0
Intersection LOS	TWSC											
95th Percentile Queue (veh)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

## Synchro Results Summary Sheet

4: DaVita Access &amp; Transport St.

2025\_Conditions

DaVita Access

Transport St.

Signalized

DaVita Access / Transport St. 2025_Conditions	EB (DaVita Access)			NB (Transport St.)			SB (Transport St.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1>	0	0	1	2	0	0	2>	0
AM Peak Hour									
2025_NO BUILD Volumes									
V/C Ratio									
Level-of-Service									
Control Delay (Seconds)									
Intersection LOS	TWSC								
95th Percentile Queue (veh)									
2025_BUILD Volumes									
V/C Ratio									
Level-of-Service									
Control Delay (Seconds)									
Intersection LOS	TWSC								
95th Percentile Queue (veh)									

PM Peak Hour

2025_NO BUILD Volumes									
V/C Ratio									
Level-of-Service									
Control Delay (Seconds)									
Intersection LOS	TWSC								
95th Percentile Queue (veh)									
2025_BUILD Volumes									
V/C Ratio									
Level-of-Service									
Control Delay (Seconds)									
Intersection LOS	TWSC								
95th Percentile Queue (veh)									



## Synchro Results Summary Sheet

5: Driveway "A" &amp; Woodward Rd.

2025\_Conditions

Woodward Rd.

Driveway "A"

Unsignalized

Woodward Rd. / Driveway "A" 2025_Conditions	EB (Woodward Rd.)			WB (Woodward Rd.)			SB (Driveway "A")		
	L	T	R	L	T	R	L	T	R
Proposed Lane Geometry	0	<1	0	0	1>	0	1>	0	0
AM Peak Hour									
2025_BUILD Volumes	1	86	0	0	55	16	34	0	3
V/C Ratio	0.00						0.05		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.3	0.0			0.0		9.5		0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	0.0	0.0			0.0		0.2		0.0

PM Peak Hour

2025_BUILD Volumes	3	95	0	0	59	39	25	0	2
V/C Ratio	0.00						0.04		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.4	0.0			0.0		9.6		0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	0.0	0.0			0.0		0.1		0.0

## Synchro Results Summary Sheet

6:Driveway "B" &amp; Flightway Ave.

2025\_Conditions

Flightway Ave

Driveway "B"

Unsignalized

Flightway Ave / Driveway "B" 2025_Conditions	EB (Flightway Ave)			WB (Flightway Ave)			NB (Driveway "B")		
	L	T	R	L	T	R	L	T	R
Proposed Lane Geometry	0	1>	0	0	<1	0	1>	0	0
AM Peak Hour									
2025_BUILD Volumes		66	2	12	86		3		35
V/C Ratio				0.01			0.04		
Level-of-Service				A	A		A		
Control Delay (Seconds)		0.0	0.0	7.4	0.0		8.9		0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)		0.0	0.0	0.0	0.0		0.1		0.0

PM Peak Hour

2025_BUILD Volumes		81	4	31	97		2		26
V/C Ratio				0.02			0.03		
Level-of-Service				A	A		A		
Control Delay (Seconds)		0.0	0.0	7.4	0.0		8.9		0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)		0.0	0.0	0.1	0.0		0.1		0.0






## Appendix 11



# HCM 7th TWSC

## 1: University Blvd SE & Flightway Ave

06/03/2024

Intersection							
Int Delay, s/veh	1.4						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	53	37	1	79	900	500	42
Future Vol, veh/h	53	37	1	79	900	500	42
Conflicting Peds, #/hr	3	3	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	175	-	-	-
Veh in Median Storage, #	1	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	0	5	1	3	5
Mvmt Flow	58	40	1	86	978	543	46

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	1232	298	589	589	0	-	0
Stage 1	566	-	-	-	-	-	-
Stage 2	666	-	-	-	-	-	-
Critical Hdwy	6.84	7.18	6.4	4.2	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.44	2.5	2.25	-	-	-
Pot Cap-1 Maneuver	169	664	616	962	-	-	-
Stage 1	531	-	-	-	-	-	-
Stage 2	472	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	160	662	954	954	-	-	-
Mov Cap-2 Maneuver	295	-	-	-	-	-	-
Stage 1	501	-	-	-	-	-	-
Stage 2	472	-	-	-	-	-	-






Approach	EB	NB	SB
HCM Control Delay, s/v	17.64	0.75	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	954	-	382	-	-
HCM Lane V/C Ratio	0.091	-	0.256	-	-
HCM Control Delay (s/veh)	9.2	-	17.6	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1	-	-

# HCM 7th TWSC

## 1: University Blvd SE & Flightway Ave

06/05/2024

Intersection							
Int Delay, s/veh	2						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	76	52	1	83	911	505	51
Future Vol, veh/h	76	52	1	83	911	505	51
Conflicting Peds, #/hr	3	3	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	175	-	-	-
Veh in Median Storage, #	1	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	0	5	1	3	5
Mvmt Flow	83	57	1	90	990	549	55

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1257	305	604	604	0	0
Stage 1	577	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Critical Hdwy	6.84	7.18	6.4	4.2	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.44	2.5	2.25	-	-
Pot Cap-1 Maneuver	163	656	602	949	-	-
Stage 1	525	-	-	-	-	-
Stage 2	464	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	153	655	941	941	-	-
Mov Cap-2 Maneuver	288	-	-	-	-	-
Stage 1	493	-	-	-	-	-
Stage 2	464	-	-	-	-	-






Approach	EB	NB	SB
HCM Control Delay, s/v20.29		0.78	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	941	-	373	-	-
HCM Lane V/C Ratio	0.097	-	0.373	-	-
HCM Control Delay (s/veh)	9.2	-	20.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.7	-	-

# HCM 7th TWSC

## 1: University Blvd SE & Flightway Ave

06/03/2024

Intersection							
Int Delay, s/veh	2						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	65	51	2	40	659	900	78
Future Vol, veh/h	65	51	2	40	659	900	78
Conflicting Peds, #/hr	6	6	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	175	-	-	-
Veh in Median Storage, #	1	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	8	1	1	5
Mvmt Flow	71	55	2	43	716	978	85

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	1476	538	1063	1063	0	-	0
Stage 1	1021	-	-	-	-	-	-
Stage 2	455	-	-	-	-	-	-
Critical Hdwy	6.8	6.94	6.4	4.26	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.32	2.5	2.28	-	-	-
Pot Cap-1 Maneuver	119	488	308	617	-	-	-
Stage 1	313	-	-	-	-	-	-
Stage 2	611	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	113	485	582	582	-	-	-
Mov Cap-2 Maneuver	226	-	-	-	-	-	-
Stage 1	297	-	-	-	-	-	-
Stage 2	611	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v25.98		0.7	0
HCM LOS	D		





Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	582	-	295	-	-
HCM Lane V/C Ratio	0.078	-	0.427	-	-
HCM Control Delay (s/veh)	11.7	-	26	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.3	-	2	-	-



# HCM 7th TWSC

## 1: University Blvd SE & Flightway Ave

06/05/2024

Intersection							
Int Delay, s/veh	2.9						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	82	62	3	50	667	912	101
Future Vol, veh/h	82	62	3	50	667	912	101
Conflicting Peds, #/hr	6	6	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	175	-	-	-
Veh in Median Storage, #	1	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	8	1	1	5
Mvmt Flow	89	67	3	54	725	991	110






Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	1530	557	1101	1101	0	-	0
Stage 1	1046	-	-	-	-	-	-
Stage 2	484	-	-	-	-	-	-
Critical Hdwy	6.8	6.94	6.4	4.26	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.32	2.5	2.28	-	-	-
Pot Cap-1 Maneuver	110	474	291	596	-	-	-
Stage 1	304	-	-	-	-	-	-
Stage 2	591	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	102	471	552	552	-	-	-
Mov Cap-2 Maneuver	214	-	-	-	-	-	-
Stage 1	283	-	-	-	-	-	-
Stage 2	591	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v33.07		0.9	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	552	-	280	-	-
HCM Lane V/C Ratio	0.104	-	0.56	-	-
HCM Control Delay (s/veh)	12.3	-	33.1	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.3	-	3.2	-	-

HCM 7th TWSC  
2: University Blvd SE & Woodward Rd SE

06/03/2024

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	58	196	112	921	504	34
Future Vol, veh/h	58	196	112	921	504	34
Conflicting Peds, #/hr	2	2	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	245	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	2	2	4	0
Mvmt Flow	63	213	122	1001	548	37






Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1312	294	585	0	-	0
Stage 1	566	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.14	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.22	-	-	-
Pot Cap-1 Maneuver	149	699	986	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	427	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	130	698	986	-	-	-
Mov Cap-2 Maneuver	262	-	-	-	-	-
Stage 1	463	-	-	-	-	-
Stage 2	427	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v20.34		0.99	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	986	-	506	-	-
HCM Lane V/C Ratio	0.123	-	0.546	-	-
HCM Control Delay (s/veh)	9.2	-	20.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	3.2	-	-

HCM 7th TWSC  
2: University Blvd SE & Woodward Rd SE

06/05/2024

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	69	222	124	925	519	39
Future Vol, veh/h	69	222	124	925	519	39
Conflicting Peds, #/hr	2	2	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	245	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	2	2	4	0
Mvmt Flow	75	241	135	1005	564	42

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1360	305	607	0	-	0
Stage 1	585	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.14	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.22	-	-	-
Pot Cap-1 Maneuver	138	688	968	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	119	686	968	-	-	-
Mov Cap-2 Maneuver	250	-	-	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	413	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v25.26		1.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	968	-	485	-	-
HCM Lane V/C Ratio	0.139	-	0.652	-	-
HCM Control Delay (s/veh)	9.3	-	25.3	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.5	-	4.6	-	-

HCM 7th TWSC  
2: University Blvd SE & Woodward Rd SE

06/03/2024

Intersection								
Int Delay, s/veh	9.1							
Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations		W			W	↑↑	↑↑	
Traffic Vol, veh/h	1	79	172	8	175	619	882	73
Future Vol, veh/h	1	79	172	8	175	619	882	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	None
Storage Length	-	0	-	-	245	-	-	-
Veh in Median Storage, #	-	1	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	2	1	1	0
Mvmt Flow	1	86	187	9	190	673	959	79

Major/Minor	Minor2	Major1			Major2		
Conflicting Flow All	0	1733	519	1038	1038	0	0
Stage 1	0	998	-	-	-	-	-
Stage 2	0	734	-	-	-	-	-
Critical Hdwy	-	6.82	6.94	6.4	4.14	-	-
Critical Hdwy Stg 1	-	5.82	-	-	-	-	-
Critical Hdwy Stg 2	-	5.82	-	-	-	-	-
Follow-up Hdwy	-	3.51	3.32	2.5	2.22	-	-
Pot Cap-1 Maneuver	0	~ 80	502	319	665	-	-
Stage 1	0	319	-	-	-	-	-
Stage 2	0	438	-	-	-	-	-
Platoon blocked, %	-					-	-
Mov Cap-1 Maneuver	0	~ 61	502	604	604	-	-
Mov Cap-2 Maneuver	0	169	-	-	-	-	-
Stage 1	0	246	-	-	-	-	-
Stage 2	0	438	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v62.65		3.16	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	604	-	310	-	-
HCM Lane V/C Ratio	0.329	-	0.88	-	-
HCM Control Delay (s/veh)	13.9	-	62.7	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	1.4	-	8.1	-	-

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

HCM 7th TWSC  
2: University Blvd SE & Woodward Rd SE

06/05/2024

Intersection								
Int Delay, s/veh	15.5							
Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations		W			W	↑↑	↑↑	
Traffic Vol, veh/h	1	87	191	14	200	630	893	85
Future Vol, veh/h	1	87	191	14	200	630	893	85
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	None
Storage Length	-	0	-	-	245	-	-	-
Veh in Median Storage, #	-	1	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	2	1	1	0
Mvmt Flow	1	95	208	15	217	685	971	92

Major/Minor	Minor2	Major1			Major2		
Conflicting Flow All	0	1824	532	1063	1063	0	0
Stage 1	0	1017	-	-	-	-	-
Stage 2	0	808	-	-	-	-	-
Critical Hdwy	-	6.82	6.94	6.4	4.14	-	-
Critical Hdwy Stg 1	-	5.82	-	-	-	-	-
Critical Hdwy Stg 2	-	5.82	-	-	-	-	-
Follow-up Hdwy	-	3.51	3.32	2.5	2.22	-	-
Pot Cap-1 Maneuver	0	~ 69	492	308	651	-	-
Stage 1	0	312	-	-	-	-	-
Stage 2	0	402	-	-	-	-	-
Platoon blocked, %	-					-	-
Mov Cap-1 Maneuver	0	~ 50	492	555	555	-	-
Mov Cap-2 Maneuver	0	152	-	-	-	-	-
Stage 1	0	225	-	-	-	-	-
Stage 2	0	402	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v104.2		4.08	0
HCM LOS	F		





Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	555	-	290	-	-
HCM Lane V/C Ratio	0.419	-	1.043	-	-
HCM Control Delay (s/veh)	16.1	-	104.2	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	2.1	-	11.5	-	-

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

# HCM 7th TWSC

## 3: Transport St SE & Woodward Rd SE

06/03/2024





Intersection												
Int Delay, s/veh	7.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	1	0	55	0	1	13	75	0	0
Future Vol, veh/h	0	0	0	1	0	55	0	1	13	75	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	6	6	6	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	1	0	60	0	1	14	82	0	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	166	182	2	173	175	10	2	0	0	17	0	0
Stage 1	165	165	-	10	10	-	-	-	-	-	-	-
Stage 2	1	17	-	163	165	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	789	705	1071	794	722	1077	1634	-	-	1613	-	-
Stage 1	828	754	-	1016	891	-	-	-	-	-	-	-
Stage 2	1012	873	-	844	766	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	706	666	1069	753	683	1075	1631	-	-	1610	-	-
Mov Cap-2 Maneuver	706	666	-	753	683	-	-	-	-	-	-	-
Stage 1	784	715	-	1014	889	-	-	-	-	-	-	-
Stage 2	955	871	-	801	725	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v	0		8.58			0			7.36			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1631	-	-	-	1067	1610	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.057	0.051	-	-				
HCM Control Delay (s/veh)	0	-	-	0	8.6	7.4	0	-				
HCM Lane LOS	A	-	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2	-	-				



# HCM 7th TWSC

## 3: Transport St SE & Woodward Rd SE





06/05/2024

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	1	0	60	0	1	13	79	0	0
Future Vol, veh/h	0	0	0	1	0	60	0	1	13	79	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	6	6	6	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	1	0	65	0	1	14	86	0	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	175	191	2	182	184	10	2	0	0	17	0	0
Stage 1	174	174	-	10	10	-	-	-	-	-	-	-
Stage 2	1	17	-	172	174	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	779	697	1071	784	714	1077	1634	-	-	1613	-	-
Stage 1	819	748	-	1016	891	-	-	-	-	-	-	-
Stage 2	1012	873	-	835	759	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	691	657	1069	741	673	1075	1631	-	-	1610	-	-
Mov Cap-2 Maneuver	691	657	-	741	673	-	-	-	-	-	-	-
Stage 1	774	706	-	1014	889	-	-	-	-	-	-	-
Stage 2	950	871	-	790	717	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v	0		8.6			0			7.36			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1631	-	-	-	1067	1610	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.062	0.053	-	-				
HCM Control Delay (s/veh)	0	-	-	0	8.6	7.4	0	-				
HCM Lane LOS	A	-	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2	-	-				

# HCM 7th TWSC

## 3: Transport St SE & Woodward Rd SE





06/03/2024

Intersection													
Int Delay, s/veh	7.1												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	2	2	0	54	0	1	12	87	4	0
Future Vol, veh/h	0	0	0	2	2	0	54	0	1	12	87	4	0
Conflicting Peds, #/hr	2	0	2	1	1	0	1	2	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
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	92
Heavy Vehicles, %	0	0	0	0	0	0	2	0	0	0	6	0	0
Mvmt Flow	0	0	0	2	2	0	59	0	1	13	95	4	0
Major/Minor	Minor2		Minor1			Major1			Major2				
Conflicting Flow All	199	212	8	0	205	205	12	6	0	0	16	0	0
Stage 1	195	195	-	0	10	10	-	-	-	-	-	-	-
Stage 2	3	16	-	0	195	195	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	-	7.1	6.5	6.22	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	3.5	4	3.318	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	765	689	1079	0	757	695	1069	1628	-	-	1576	-	-
Stage 1	811	743	-	0	1017	892	-	-	-	-	-	-	-
Stage 2	1025	886	-	0	811	743	-	-	-	-	-	-	-
Platoon blocked, %				-					-	-		-	-
Mov Cap-1 Maneuver	676	645	1075	0	709	651	1065	1625	-	-	1573	-	-
Mov Cap-2 Maneuver	676	645	-	0	709	651	-	-	-	-	-	-	-
Stage 1	761	697	-	0	1015	890	-	-	-	-	-	-	-
Stage 2	966	884	-	0	761	697	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB				
HCM Control Delay, s/v	0		8.66			0			7.11				
HCM LOS	A		A										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1625	-	-	-	1046	1569	-	-					
HCM Lane V/C Ratio	-	-	-	-	0.06	0.06	-	-					
HCM Control Delay (s/veh)	0	-	-	0	8.7	7.4	0	-					
HCM Lane LOS	A	-	-	A	A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2	-	-					

# HCM 7th TWSC




## 3: Transport St SE & Woodward Rd SE

06/05/2024

Intersection													
Int Delay, s/veh	7.2												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	2	2	0	60	0	1	12	92	4	0
Future Vol, veh/h	0	0	0	2	2	0	60	0	1	12	92	4	0
Conflicting Peds, #/hr	2	0	2	1	1	0	1	2	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
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	92
Heavy Vehicles, %	0	0	0	0	0	0	2	0	0	0	6	0	0
Mvmt Flow	0	0	0	2	2	0	65	0	1	13	100	4	0
Major/Minor	Minor2		Minor1			Major1			Major2				
Conflicting Flow All	209	222	8	0	216	216	12	6	0	0	16	0	0
Stage 1	206	206	-	0	10	10	-	-	-	-	-	-	-
Stage 2	3	16	-	0	206	206	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	-	7.1	6.5	6.22	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	3.5	4	3.318	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	752	680	1079	0	745	685	1069	1628	-	-	1576	-	-
Stage 1	800	735	-	0	1017	892	-	-	-	-	-	-	-
Stage 2	1025	886	-	0	800	735	-	-	-	-	-	-	-
Platoon blocked, %				-					-	-		-	-
Mov Cap-1 Maneuver	659	634	1075	0	695	639	1065	1625	-	-	1573	-	-
Mov Cap-2 Maneuver	659	634	-	0	695	639	-	-	-	-	-	-	-
Stage 1	748	687	-	0	1015	890	-	-	-	-	-	-	-
Stage 2	960	884	-	0	748	687	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB				
HCM Control Delay, s/v	0		8.68			0			7.13				
HCM LOS	A		A										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1625	-	-	-	1047	1569	-	-					
HCM Lane V/C Ratio	-	-	-	-	0.066	0.064	-	-					
HCM Control Delay (s/veh)	0	-	-	0	8.7	7.4	0	-					
HCM Lane LOS	A	-	-	A	A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2	-	-					




HCM 7th TWSC  
5: Woodward Rd SE & Driveway "A"

06/05/2024

Intersection						
Int Delay, s/veh	1.8					
Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	34	3	1	91	58	16
Future Vol, veh/h	34	3	1	91	58	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	37	3	1	99	63	17
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	173	72	80	0	-	0
Stage 1	72	-	-	-	-	-
Stage 2	101	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	822	996	1530	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	821	996	1530	-	-	-
Mov Cap-2 Maneuver	821	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Approach	SB	NE		SW		
HCM Control Delay, s/v	9.54	0.08		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR	
Capacity (veh/h)	20	-	833	-	-	
HCM Lane V/C Ratio	0.001	-	0.048	-	-	
HCM Control Delay (s/veh)	7.4	0	9.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

HCM 7th TWSC  
5: Woodward Rd SE & Driveway "A"

06/05/2024

Intersection						
Int Delay, s/veh	1.2					
Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	25	2	3	100	62	39
Future Vol, veh/h	25	2	3	100	62	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	2	3	109	67	42




Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	204	89	110	0	-	0
Stage 1	89	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	789	975	1493	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	787	975	1493	-	-	-
Mov Cap-2 Maneuver	787	-	-	-	-	-
Stage 1	938	-	-	-	-	-
Stage 2	915	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	9.68	0.22	0
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	52	-	799	-	-
HCM Lane V/C Ratio	0.002	-	0.037	-	-
HCM Control Delay (s/veh)	7.4	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 7th TWSC  
6: Driveway "B" & Flightway Ave

06/05/2024

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	2	12	91	3	35
Future Vol, veh/h	69	2	12	91	3	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	75	2	13	99	3	38

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	77	0	201
Stage 1	-	-	-	-	76
Stage 2	-	-	-	-	125
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1534	-	792
Stage 1	-	-	-	-	952
Stage 2	-	-	-	-	906
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1534	-	785
Mov Cap-2 Maneuver	-	-	-	-	785
Stage 1	-	-	-	-	952
Stage 2	-	-	-	-	897




Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.86	8.87
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	971	-	-	210	-
HCM Lane V/C Ratio	0.043	-	-	0.009	-
HCM Control Delay (s/veh)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



HCM 7th TWSC  
6: Driveway "B" & Flightway Ave

06/05/2024

Intersection						
Int Delay, s/veh	1.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	85	4	31	102	2	26
Future Vol, veh/h	85	4	31	102	2	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	92	4	34	111	2	28
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	97	0	273	95
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	178	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1509	-	721	968
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	857	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1509	-	704	968
Mov Cap-2 Maneuver	-	-	-	-	704	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	837	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		1.73		8.95	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	942	-	-	420	-	
HCM Lane V/C Ratio	0.032	-	-	0.022	-	
HCM Control Delay (s/veh)	8.9	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

## Synchro Results Summary Sheet

1: Flightway Ave./University Blvd

2035\_Conditions

Flightway Ave.

University Blvd.

Signalized

Flightway Ave. / University Blvd. 2035_Conditions	EB (Flightway Ave.)			NB (University Blvd.)			SB (University Blvd.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1>	0	0	<1	2	0	0	2>	0
AM Peak Hour									
2035_NO BUILD Volumes	53		37	80	900			500	42
V/C Ratio	0.26			0.09					
Level-of-Service	C			A					
Control Delay (Seconds)	17.6		0.0	9.2	0.0			0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	1.0		0.0	0.3	0.0			0.0	0.0
2035_BUILD Volumes	76		52	84	911			505	51
V/C Ratio	0.37			0.10					
Level-of-Service	C			A					
Control Delay (Seconds)	20.3		0.0	9.2	0.0			0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	1.7		0.0	0.3	0.0			0.0	0.0

PM Peak Hour

2035_NO BUILD Volumes	65		51	42	659			900	78
V/C Ratio	0.43			0.08					
Level-of-Service	D			B					
Control Delay (Seconds)	26.0		0.0	11.7	0.0			0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	2.0		0.0	0.3	0.0			0.0	0.0
2035_BUILD Volumes	82		62	53	667			912	101
V/C Ratio	0.56			0.10					
Level-of-Service	D			B					
Control Delay (Seconds)	33.1		0.0	12.3	0.0			0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	3.2		0.0	0.3	0.0			0.0	0.0

## Synchro Results Summary Sheet

2: Woodward Rd./University Blvd.

2035\_Conditions

Woodward Rd.

University Blvd.

Signalized

Woodward Rd. / University Blvd. 2035_Conditions	EB (Woodward Rd.)			NB (University Blvd.)			SB (University Blvd.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1>	0	0	1	2	0	0	2>	0
AM Peak Hour									
2035_NO BUILD Volumes	58		196	112	921			504	34
V/C Ratio	0.55			0.12					
Level-of-Service	C			A					
Control Delay (Seconds)	20.3		0.0	9.2				0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	3.2		0.0	0.4	0.0			0.0	0.0
2035_BUILD Volumes	69		222	124	925			519	39
V/C Ratio	0.65			0.14					
Level-of-Service	D			A					
Control Delay (Seconds)	25.3		0.0	9.3				0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	4.6		0.0	0.5	0.0			0.0	0.0

PM Peak Hour

2035_NO BUILD Volumes	80		172	183	619			882	73
V/C Ratio	0.88			0.33					
Level-of-Service	F			B					
Control Delay (Seconds)	62.7		0.0	13.9				0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	8.1		0.0	1.4	0.0			0.0	0.0
2035_BUILD Volumes	88		191	214	630			898	85
V/C Ratio	1.04			0.42					
Level-of-Service	F			C					
Control Delay (Seconds)	104.2		0.0	16.1				0.0	0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	11.5		0.0	2.1	0.0			0.0	0.0

## Synchro Results Summary Sheet

3: Woodward Rd./Transport St.

2035\_Conditions

Woodward Rd.

Transport St.

Signalized

Woodward Rd. / Transport St. 2035_Conditions	EB (Woodward Rd.)			WB (Woodward Rd.)			NB (Transport St.)			SB (Transport St.)		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	0	<1>	0	0	<1>	0	0	<1>	0	0	<1>	0
AM Peak Hour												
2035_NO BUILD Volumes	0	0	0	1	0	55	0	1	13	75	0	0
V/C Ratio	0.00			0.06			0.00			0.05	0.00	
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0
Intersection LOS	TWSC											
95th Percentile Queue (veh)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
2035_BUILD Volumes	0	0	0	1	0	60	0	1	13	79	0	0
V/C Ratio	0.00			0.06						0.05	0.00	
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0
Intersection LOS	TWSC											
95th Percentile Queue (veh)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

PM Peak Hour

2035_NO BUILD Volumes	0	0	0	4	0	54	0	1	12	87	4	0
V/C Ratio	0.00			0.06			0.00			0.06	0.00	
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0
Intersection LOS	TWSC											
95th Percentile Queue (veh)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
2035_BUILD Volumes	0	0	0	4	0	60	0	1	12	92	4	0
V/C Ratio	0.00			0.07			0.00			0.06	0.00	
Level-of-Service	A			A			A			A	A	
Control Delay (Seconds)	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0
Intersection LOS	TWSC											
95th Percentile Queue (veh)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

## Synchro Results Summary Sheet

4: DaVita Access &amp; Transport St.

2035\_Conditions

DaVita Access

Transport St.

Signalized

DaVita Access / Transport St. 2035_Conditions	EB (DaVita Access)			NB (Transport St.)			SB (Transport St.)		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1>	0	0	1	2	0	0	2>	0
AM Peak Hour									
2035_NO BUILD Volumes									
V/C Ratio									
Level-of-Service									
Control Delay (Seconds)									
Intersection LOS	TWSC								
95th Percentile Queue (veh)									
2035_BUILD Volumes									
V/C Ratio									
Level-of-Service									
Control Delay (Seconds)									
Intersection LOS	TWSC								
95th Percentile Queue (veh)									

PM Peak Hour

2035_NO BUILD Volumes									
V/C Ratio									
Level-of-Service									
Control Delay (Seconds)									
Intersection LOS	TWSC								
95th Percentile Queue (veh)									
2035_BUILD Volumes									
V/C Ratio									
Level-of-Service									
Control Delay (Seconds)									
Intersection LOS	TWSC								
95th Percentile Queue (veh)									

## Synchro Results Summary Sheet

5: Driveway "A" &amp; Woodward Rd.

2035\_Conditions

Woodward Rd.

Driveway "A"

Unsignalized

Woodward Rd. / Driveway "A" 2035_Conditions	EB (Woodward Rd.)			WB (Woodward Rd.)			SB (Driveway "A")		
	L	T	R	L	T	R	L	T	R
Proposed Lane Geometry	0	<1	0	0	1>	0	1>	0	0
AM Peak Hour									
2035_NO BUILD Volumes	1	91	0	0	58	16	34	0	3
V/C Ratio	0.00						0.05		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.4	0.0			0.0		9.5		0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	0.0	0.0			0.0		0.2		0.0

PM Peak Hour

2035_BUILD Volumes	3	100	0	0	62	39	25	0	2
V/C Ratio	0.00						0.04		
Level-of-Service	A	A					A		
Control Delay (Seconds)	7.4	0.0			0.0		9.7		0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)	0.0	0.0			0.0		0.1		0.0

## Synchro Results Summary Sheet

6: Flightway Ave. &amp; Driveway "B"

2035\_Conditions

Flightway Ave

Driveway "B"

Unsignalized

Flightway Ave / Driveway "B" 2035_Conditions	EB (Flightway Ave)			WB (Flightway Ave)			NB (Driveway "B")		
	L	T	R	L	T	R	L	T	R
Proposed Lane Geometry	0	1>	0	0	<1	0	1>	0	0
AM Peak Hour									
2035_NO BUILD Volumes		69	2	12	91		3		35
V/C Ratio				0.01			0.04		
Level-of-Service				A	A		A		
Control Delay (Seconds)		0.0	0.0	7.4	0.0		8.9		0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)		0.0	0.0	0.0	0.0		0.1		0.0

PM Peak Hour

2035_BUILD Volumes		85	4	31	102		2		26
V/C Ratio				0.02			0.03		
Level-of-Service				A	A		A		
Control Delay (Seconds)		0.0	0.0	7.4	0.0		8.9		0.0
Intersection LOS	TWSC								
95th Percentile Queue (veh)		0.0	0.0	0.1	0.0		0.1		0.0



## Appendix 12



**Crash Analysis Summary Table**  
**Transport Apartments**  
**Crash Data from IPRA**

CRASH TYPE	Year					SUBTOTAL	PERCENTAGE CRASH TYPE
	2018	2019	2020	2021	2022		
ALCOHOL INVOLVED	0	0	1	0	1	2	3.1%
CURVE	1	1	0	0	1	3	4.6%
DARK-LIGHTING	1	1	2	0	2	6	9.2%
DARK-NOT LIGHTING	0	1	0	0	1	2	3.1%
<b>FATALITY</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0%</b>
HEAVY TRUCK	1	1	0	0	0	2	3.1%
HILL CREST	1	0	0	0	1	2	3.1%
HIT-AND-RUN	1	3	3	2	2	11	16.9%
INJURY	3	0	2	1	2	8	12.3%
PROPERTY DAMAGE	5	7	4	5	6	27	41.5%
RAINING	1	0	0	0	0	1	1.5%
WORK ZONE	0	0	0	0	1	1	1.5%
<b>SUBTOTAL</b>	<b>14</b>	<b>14</b>	<b>12</b>	<b>8</b>	<b>17</b>	<b>65</b>	<b>100.0%</b>

**Crash Analysis Summary Table**  
**Transport Apartments**  
**(Flightway Ave /University Blvd)**

Crash Analysis Summary Table  
**Crash Data from (IPRA) Internal Request**

CRASH TYPE	Direction					PERCENTAGE DIRECTION	Year					SUBTOTAL	PERCENTAGE CRASH TYPE
	E	W	N	S	UNK		2018	2019	2020	2021	2022		
BACKING UP	1	0	0	0	0	3%	0	0	1	0	2	3	9%
FIXED OBJECT	1	0	1	3	1	18%	0	2	1	2	0	5	16%
LEFT-TURN ANGLE	0	1	0	0	0	3%	1	0	0	0	0	1	3%
PARKED VEHICLE	1	0	1	3	0	15%	2	0	2	0	0	4	13%
RIGHT-TURN-ANGLED	0	0	0	1	0	3%	1	2	0	0	0	3	9%
HEAD-ON COLLISION	1	2	0	1	1	15%	2	0	0	1	0	3	9%
REAR-END	0	0	1	0	0	3%	1	0	0	0	1	2	6%
SIDESWIPE LL	1	0	0	0	0	3%	0	0	1	0	1	2	6%
SIDESWIPE RL	3	0	2	1	0	18%	0	1	1	2	2	6	19%
T-BONE	0	2	0	1	0	9%	0	0	0	0	1	1	3%
OTHER	1	0	0	1	0	6%	1	0	0	1	1	3	9%
UNKNOWN	0	0	0	0	3	9%	0	2	0	0	0	2	6%
<b>SUBTOTAL</b>	8	5	5	11	5	100%	8	7	5	6	6	35	100.00%

**Crash Analysis Summary Table**  
**Transport Apartments**  
**(Flightway Ave /University Blvd)**

Crash Data from (IPRA) Internal Request  
Intersection #1:

CRASH TYPE	Direction				PERCENTAGE DIRECTION	Year					SUBTOTAL	PERCENTAGE CRASH TYPE
	E	N	S	UNK		2018	2019	2020	2021	2022		
FIXED OBJECT		1	2	1	29%		2	1	1		4	29%
PARKED VEHICLE	1				7%	1					1	7%
RIGHT-TURN-ANGLED			1		7%	1					1	7%
HEAD-ON COLLISION				1	7%				1		1	7%
REAR-END		1			7%					1	1	7%
SIDESWIPE RL		2	1		21%		1		1	1	3	21%
T-BONE			1		7%					1	1	7%
OTHER	1				7%	1					1	7%
UNKNOWN				1	7%		1				1	7%
<b>SUBTOTAL</b>	2	4	5	3	100%	3	4	1	3	3	14	100.00%

**Crash Analysis Summary Table**  
**Transport Apartments**  
**(Woodward Rd. /University Blvd)**

Crash Data from (IPRA) Internal Request  
Intersection #2:

CRASH TYPE	Direction				PERCENTAGE DIRECTION	Year					SUBTOTAL	PERCENTAGE CRASH TYPE
	E	W	S	UNK		2018	2019	2020	2021	2022		
BACKING UP	1				11%					1	1	11%
LEFT-TURN ANGLE			3		33%	1		2			3	33%
PARKED VEHICLE	1	1			22%	2					2	22%
SIDESWIPE LL	1				11%			1			1	11%
T-BONE			1		11%				1		1	11%
UNKNOWN				1	11%		1				1	11%
<b>SUBTOTAL</b>	3	1	4	1	100%	3	1	3	1	1	9	100.00%

**Crash Analysis Summary Table**  
**Transport Apartments**  
**(Woodward Rd./Transport St.-Sunport)**

Crash Data from (IPRA) Internal Request  
Intersection #1:

CRASH TYPE	Direction					PERCENTAGE DIRECTION	Year					SUBTOTAL	PERCENTAGE CRASH TYPE
	E	W	N	S	UNK		2018	2019	2020	2021	2022		
FIXED OBJECT	1			1		17%			1		1	2	17%
HEAD-ON COLLISION		1				8%				1		1	8%
LEFT-TURN ANGLE			1			8%	1					1	8%
PARKED VEHICLE		1		1		17%		2				2	17%
RIGHT-TURN-ANGLED	1					8%	1					1	8%
SIDESWIPE LL	2					17%			1		1	2	17%
SIDESWIPE RL		2				17%				1		2	17%
UNKNOWN					1	8%					1	1	8%
<b>SUBTOTAL</b>	4	4	1	2	1	100%	2	2	2	2	4	12	100.00%

CRASH YEAR	MONTH	TIME OF CRASH	HOUR OF CRASH	DAY OF WEEK	LAW ENFORCEMENT AGENCY	COUNTY	CITY	PRIMARY STREET
2018	January	10:37	10 a.m.	Tuesday	Albuquerque Police Department	Bernalillo	Albuquerque	FLIGHTWAY AVE SE
2018	November	4:55	4 a.m.	Friday	Albuquerque Police Department	Bernalillo	Albuquerque	SUNPORT PL SE
2018	September	9:50	9 a.m.	Tuesday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERISTY BLVD SE
2018	January	15:50	3 p.m.	Tuesday	Station Report	Bernalillo	Albuquerque	UNIVERISTY BLVD SE
2018	October	11:04	11 a.m.	Wednesday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERSITY BLVD SE
2018	May	9:53	9 a.m.	Tuesday	Albuquerque Police Department	Bernalillo	Albuquerque	WOODWARD RD SE
2018	August	9:57	9 a.m.	Thursday	Albuquerque Police Department	Bernalillo	Albuquerque	WOODWARD RD SE
2018	September	7:29	7 a.m.	Friday	Albuquerque Police Department	Bernalillo	Albuquerque	WOODWARD RD SE
2019	December	0:30	12 a.m.	Friday	Albuquerque Police Department	Bernalillo	Albuquerque	3003 TRANSPORT ST SE
2019	December	18:42	6 p.m.	Tuesday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERISTY BLVD SE
2019	May	9:52	9 a.m.	Friday	Albuquerque Police Department	Bernalillo	Albuquerque	TRANSPORT SE
2019	February	21:30	9 p.m.	Saturday	Station Report	Bernalillo	Albuquerque	UNIVERSITY BLVD NE
2019	November	14:48	2 p.m.	Wednesday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERSITY BLVD SE
2019	March	20:30	8 p.m.	Monday	Station Report	Bernalillo	Albuquerque	UNIVERSITY BLVD.
2019	October	15:00	3 p.m.	Wednesday	Station Report	Bernalillo	Albuquerque	UNIVERSITY SE
2020	June	21:30	9 p.m.	Tuesday	Albuquerque Police Department	Bernalillo	Albuquerque	3003 TRANSPORT ST SE
2020	June	22:39	10 p.m.	Tuesday	Albuquerque Police Department	Bernalillo	Albuquerque	3003 TRANSPORT ST SE
2020	February	14:33	2 p.m.	Wednesday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERISTY BLVD SE
2020	June	16:08	4 p.m.	Thursday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERISTY BLVD SE
2020	January	16:40	4 p.m.	Tuesday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERSITY BLVD SE
2020	August	10:47	10 a.m.	Friday	Albuquerque Police Department	Bernalillo	Albuquerque	WOODWARD RD SE
2021	October	6:00	6 a.m.	Thursday	Station Report	Bernalillo	Albuquerque	3041 UNIVERSITY BLVD SE
2021	March	9:13	9 a.m.	Tuesday	Albuquerque Police Department	Bernalillo	Albuquerque	SUNPORT BLVD SE
2021	August	9:22	9 a.m.	Monday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERSITY BL SE
2021	February	13:00	1 p.m.	Monday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERSITY BLVD SE
2021	November	15:37	3 p.m.	Monday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERSITY BLVD SE
2021	January	9:24	9 a.m.	Friday	Albuquerque Police Department	Bernalillo	Albuquerque	WOODWARD RD SE
2022	July	6:34	6 a.m.	Friday	Albuquerque Police Department	Bernalillo	Albuquerque	3003 TRANSPORT ST SE
2022	January	23:04	11 p.m.	Saturday	Albuquerque Police Department	Bernalillo	Albuquerque	3003 TRANSPORT ST SE
2022	July	20:17	8 p.m.	Saturday	Albuquerque Police Department	Bernalillo	Albuquerque	FLIGHTWAY AVE SE
2022	July	10:14	10 a.m.	Thursday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERISTY BLVD SE
2022	August	8:44	8 a.m.	Thursday	Albuquerque Police Department	Bernalillo	Albuquerque	UNIVERSITY BL SE
2022	April	20:13	8 p.m.	Thursday	Albuquerque Police Department	Bernalillo	Albuquerque	WOODWARD RD SE
2022	October	14:30	2 p.m.	Saturday	Station Report	Bernalillo	Albuquerque	WOODWARD RD SE
2022	April	Invalid Code	Invalid Code	Thursday	Bernalillo County Sheriffs Department	Bernalillo	Albuquerque	WOODWARD RD.



SECONDARY STREET	LANDMARK/LOCATION	GIS-DERIVED ROUTE NAME	GIS-DERIVED MILEPOST	CRASH DIRECTION	DIRECTION FROM INTERSECTION OR LANDMARK	DISTANCE FROM LANDMARK	DISTANCE FROM LANDMARK MEASUREMENT UNIT
UNIVERISTY BLVD SE WOODWARD RD SE WOODWARD RD SE FLIGHTWAY AVE SE FLIGHTWAY AVE SE SUNPORT PL SE UNIVERSITY BLVD SE UNIVERSITY BLVD SE	UNIVERSITY BLVD SE/WOODWARD RD SE			E N S E S E W E	S		
FLIGHTWAY AVE SE  FLIGHTWAY AVE SE FLIGHTWAY AVE SE FLIGHTWAY AVE SE WOODWARD SE	WOODWARD			W S S N N  E	S	100	FT
3003 TRANSPORT ST SE  WOODWARD RD SE WOODWARD RD SE FLIGHTWAY AVE SE 1300 WOODWARD RD SE	WOODWARD RD SE			E E S S N E			
FLIGHTWAY AVE SE WOODWARD RD SE FLIGHTWAY AVE SE FLIGHTWAY AVE SE WOODWARD RD SE SUNPORT BLVD SE	FLIGHTWAY AVE SE			W S S S W	W N	90 25	FT FT
N/A  WOODWARD RD SE FLIGHTWAY AVE SE FLIGHTWAY AV SE SUNPORT LP SE TRANSPORT UNIVERSITY BLVD				S E N N S W  E	N  S W  E		

CRASH SEVERITY	NUMBER OF PEOPLE KILLED IN CRASH	NUMBER OF PEOPLE WITH SUSPECTED SERIOUS INJURIES (CLASS A) IN CRASH	NUMBER OF PEOPLE WITH SUSPECTED MINOR INJURIES (CLASS B) IN CRASH	NUMBER OF PEOPLE WITH POSSIBLE INJURIES (CLASS C) IN CRASH	NUMBER OF PEOPLE INJURED (CLASS A+B+C) IN CRASH	NUMBER OF PEOPLE NOT INJURED (CLASS O) IN CRASH	TOTAL NUMBER OF PEOPLE IN CRASH
Property Damage Only Crash	0	0	0	0	0	2	2
Injury Crash	0	0	0	2	2	1	3
Injury Crash	0	0	1	1	2	2	4
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	1	1
Property Damage Only Crash	0	0	0	0	0	3	3
Injury Crash	0	0	0	1	1	3	4
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	1	1
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	1	1
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	3	3
Injury Crash	0	0	0	1	1	1	2
Property Damage Only Crash	0	0	0	0	0	1	1
Injury Crash	0	0	0	1	1	1	2
Property Damage Only Crash	0	0	0	0	0	3	3
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	1	1
Property Damage Only Crash	0	0	0	0	0	2	2
Injury Crash	0	0	2	0	2	2	4
Property Damage Only Crash	0	0	0	0	0	1	1
Property Damage Only Crash	0	0	0	0	0	3	3
Property Damage Only Crash	0	0	0	0	0	2	2
Injury Crash	0	0	0	1	1	1	2
Injury Crash	0	0	2	0	2	0	2
Property Damage Only Crash	0	0	0	0	0	2	2
Property Damage Only Crash	0	0	0	0	0	4	4
Property Damage Only Crash	0	0	0	0	0	2	2

NUMBER OF VEHICLES, BICYCLES, AND PEDESTRIANS INVOLVED	NUMBER OF PEOPLE IN MOTOR VEHICLES	NUMBER OF PEOPLE NOT IN MOTOR VEHICLES	NUMBER OF MOTOR VEHICLES INVOLVED	FIRST HARMFUL EVENT OCCURRED	CRASH CLASSIFICATION
2	2	0	2	On Roadway	Other Vehicle
3	1	2	3	On Roadway	Other Vehicle
3	4	0	3	On Roadway	Other Vehicle
2	2	0	2	On Roadway	Other (Object)
2	2	0	2	On Roadway	Other Vehicle
1	1	0	1	On Roadway	Other Vehicle
3	1	2	3	On Roadway	Parked Vehicle
3	2	2	3	On Roadway	Other Vehicle
2	1	1	2	Off Roadway	Other Vehicle
1	1	0	1	On Roadway	Fixed Object
2	1	1	2	On Roadway	Parked Vehicle
1	2	0	1	On Roadway	Fixed Object
2	2	0	2	On Roadway	Other Vehicle
2	2	0	2	Left Blank	Left Blank
2	2	0	2	Left Blank	Other Vehicle
1	1	0	1	On Roadway	Fixed Object
2	2	0	2	Off Roadway	Other Vehicle
2	3	0	2	On Roadway	Other Vehicle
2	2	0	2	On Roadway	Other Vehicle
1	1	0	1	On Roadway	Fixed Object
2	2	0	2	On Roadway	Left Blank
3	3	0	3	On Roadway	Other Vehicle
2	1	1	2	On Roadway	Left Blank
2	2	0	2	On Roadway	Left Blank
1	1	0	1	On Roadway	Left Blank
2	2	0	2	On Roadway	Left Blank
4	3	1	4	On Roadway	Left Blank
1	1	0	1	On Roadway	Left Blank
3	1	2	3	Off Roadway	Left Blank
2	2	0	2	On Roadway	Left Blank
2	2	0	2	On Roadway	Left Blank
2	2	0	2	On Roadway	Left Blank
2	2	0	2	On Roadway	Left Blank
2	2	0	2	On Roadway	Left Blank
2	4	0	2	On Roadway	Vehicle on Other Road
2	2	0	2	On Roadway	Other Vehicle

CRASH ANALYSIS	FIRST HARMFUL EVENT	FIRST HARMFUL EVENT - ANALYSIS
Other Vehicle - Both Turn Right/Entering At Angle	Collision with Motor Vehicle	MV in Transport
Other Vehicle - One Stopped/Entering At Angle	Collision with Motor Vehicle	MV in Transport
Other Vehicle - One Left Turn/Entering At Angle	Collision with Motor Vehicle	MV in Transport
Left Blank	Collision with Other Non-Fixed Object	Not Available
Other Vehicle - From Opposite Direction/Both Going Straight	Collision with Motor Vehicle	MV in Transport
Other Vehicle - One Right Turn/Entering At Angle	Collision with Motor Vehicle	MV in Transport
Vehicle Parked in Proper Location	Collision with Motor Vehicle	Parked MV
Other Vehicle - One Vehicle/Enter Parked Position	Collision with Motor Vehicle	MV in Transport
Other Vehicle - One Vehicle/Enter Parked Position	Collision with Motor Vehicle	MV in Transport
Fixed Object - Unknown/Not Stated	Collision with Fixed Object	Unknown
Vehicle Parked in Proper Location	Collision with Motor Vehicle	Parked MV
Left Blank	Collision with Fixed Object	Not Available
Other Vehicle - From Same Direction/Sideswipe Collision	Collision with Motor Vehicle	MV in Transport
Left Blank	Not Available	Not Available
Left Blank	Collision with Motor Vehicle	Not Available
Fixed Object - Fence (Wood, Brick, Stone)	Collision with Fixed Object	Fence
Other Vehicle - From Opposite Direction	Collision with Motor Vehicle	MV in Transport
Other Vehicle - One Left Turn/Entering At Angle	Collision with Motor Vehicle	MV in Transport
Other Vehicle - From Opposite Direction/One Left Turn	Collision with Motor Vehicle	MV in Transport
Fixed Object - Unknown/Not Stated	Collision with Fixed Object	Unknown
Left Blank	Collision with Motor Vehicle	MV in Transport
Other Vehicle - From Opposite Direction	Collision with Motor Vehicle	MV in Transport
Left Blank	Collision with Motor Vehicle	Parked MV
Left Blank	Collision with Motor Vehicle	MV in Transport
Left Blank	Collision with Other Non-Fixed Object	Other Non-fixed Object
Left Blank	Collision with Motor Vehicle	MV in Transport
Left Blank	Collision with Motor Vehicle	MV in Transport
Left Blank	Collision with Fixed Object	Tree (standing)
Left Blank	Collision with Motor Vehicle	Parked MV
Left Blank	Collision with Motor Vehicle	MV in Transport
Left Blank	Collision with Motor Vehicle	MV in Transport
Left Blank	Collision with Motor Vehicle	MV in Transport
Left Blank	Collision with Motor Vehicle	MV in Transport
Left Blank	Collision with Motor Vehicle	Left Blank
Other Vehicle - From Same Direction/Vehicle Backing	Collision with Motor Vehicle	MV in Transport

First Harmful Event – Location	First Harmful Event – Manner of Impact	First Harmful Event – Manner of Crash	Weather	Additional Weather	Lighting	Hit and Run Crash	Alcohol Involvement	Drug Involvement	
Not Available	Not Available	Not Available	Not Available	Clear	Not Available	Daylight	No	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Dark-Lighted	No	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Daylight	No	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Daylight	No	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Raining	Not Available	Daylight	No	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Daylight	Yes	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Daylight	No	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Dawn	No	Not Involved	Not Involved
Not Available	Not Available	Not Available	Not Available	Clear	Not Available	Dark-Not Lighted	Yes	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Dark-Lighted	No	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Other	Yes	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Left Blank	Not Available	Left Blank	No	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Daylight	Yes	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Left Blank	Not Available	Left Blank	No	Not Involved	Not Involved
	Not Available	Not Available	Not Available	Clear	Not Available	Daylight	No	Not Involved	Not Involved
Off Roadway - Location Unknown	Left Blank	Left Blank	Clear	Left Blank	Dark-Lighted	Yes	Involved	Not Involved	
	Left Blank	Left Blank	Clear	Left Blank	Dark-Lighted	Yes	Not Involved	Not Involved	
	Left Blank	Left Blank	Clear	Left Blank	Daylight	No	Not Involved	Not Involved	
	Left Blank	Left Blank	Clear	Left Blank	Daylight	No	Not Involved	Not Involved	
	Left Blank	Left Blank	Clear	Left Blank	Daylight	No	Not Involved	Not Involved	
	On Roadway	Front-to-Side	From Opposite Direction	Left Blank	Left Blank	Daylight	Yes	Not Involved	Not Involved
Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Yes	Not Involved	Not Involved
	On Shoulder	Sideswipe	From Same Direction	Clear	Left Blank	Daylight	Yes	Not Involved	Not Involved
	On Roadway	Front-to-Side	From Same Direction	Cloudy	Left Blank	Daylight	No	Not Involved	Not Involved
	On Median	Left Blank	Left Blank	Clear	Left Blank	Daylight	No	Not Involved	Not Involved
	On Roadway	Front-to-Side	Intersecting Path (T-bone)	Clear	Left Blank	Daylight	No	Not Involved	Not Involved
	On Roadway	Front-to-Front	From Opposite Direction	Clear	Left Blank	Daylight	No	Not Involved	Not Involved
On Roadway	Left Blank	Left Blank	Left Blank	Clear	Left Blank	Daylight	No	Not Involved	Not Involved
	Outside Trafficway	Front-to-Side	From Opposite Direction	Clear	Left Blank	Dark-Lighted	No	Involved	Not Involved
	On Roadway	Front-to-Side	From Same Direction	Clear	Left Blank	Dark-Lighted	No	Not Involved	Not Involved
	On Roadway	Front-to-Rear	From Same Direction	Clear	Left Blank	Daylight	No	Not Involved	Not Involved
	On Roadway	Front-to-Side	Intersecting Path (T-bone)	Clear	Left Blank	Daylight	No	Not Involved	Not Involved
	On Roadway	Sideswipe	From Same Direction	Clear	Left Blank	Dark-Not Lighted	No	Not Involved	Not Involved
	Left Blank	Left Blank	Left Blank	Clear	Left Blank	Daylight	Yes	Not Involved	Not Involved
	Left Blank	Left Blank	Left Blank	Clear	Left Blank	Daylight	Yes	Not Involved	Not Involved

[illegible]

Road System: Urban, Rural or Rural Interstate		Maximum Vehicle Damage	Work Zone	Work Zone - Type	Work Zone – Location	Road Character	Road Grade	Intersection Type	Relation to Junction	Secondary Crash	Tribal Jurisdiction
	Urban	Not Available	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Disabling	Not Available	Not Available	Not Available	Curve	On Grade	Not Available	Not Available	Not Available	No
	Urban	Disabling	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Functional	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Disabling	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Functional	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Disabling	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Disabling	Not Available	Not Available	Not Available	Straight	Hillcrest	Not Available	Not Available	Not Available	No
	Urban	Appearance	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Disabling	Not Available	Not Available	Not Available	Curve	Level	Not Available	Not Available	Not Available	No
	Urban	Appearance	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Functional	Not Available	Not Available	Not Available	Left Blank	Left Blank	Not Available	Not Available	Not Available	No
	Urban	Disabling	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Not Available	Not Available	Not Available	Not Available	Left Blank	Left Blank	Not Available	Not Available	Not Available	No
	Urban	Functional	Not Available	Not Available	Not Available	Straight	Level	Not Available	Not Available	Not Available	No
	Urban	Disabling	Left Blank	Left Blank	Left Blank	Straight	Level	Left Blank	Left Blank	No	No
	Urban	Appearance	Left Blank	Left Blank	Left Blank	Straight	Level	Left Blank	Left Blank	No	No
	Urban	Functional	Left Blank	Left Blank	Left Blank	Straight	Level	Left Blank	Left Blank	No	No
	Urban	Appearance	Left Blank	Left Blank	Left Blank	Straight	Level	Left Blank	Left Blank	No	No
	Urban	Not Available	Left Blank	Left Blank	Left Blank	Straight	On Grade	Left Blank	Left Blank	No	No
	Urban	Functional	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Not an Intersection	Through Roadway	No	No
	Rural Non-Interstate	Appearance	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	No	No
	Urban	Functional	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Not an Intersection	Non-Junction	No	No
	Urban	Functional	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	T-Intersection	Intersection	No	No
	Urban	Disabling	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	T-Intersection	Intersection	No	No
	Urban	Disabling	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Four-Way	Intersection	No	No
	Urban	Disabling	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Not an Intersection	Through Roadway	Yes	No
	Urban	Disabling	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Not an Intersection	Non-Junction	No	No
	Urban	Disabling	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Not an Intersection	Non-Junction	No	No
	Urban	Disabling	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Not an Intersection	Non-Junction	No	No
	Urban	Not Available	rk Zone – Construction	Lane Closure	Activity Area	Left Blank	Left Blank	Four-Way	Intersection	No	No
	Urban	Disabling	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Four-Way	Intersection	No	No
	Urban	Functional	Left Blank	Left Blank	Left Blank	Left Blank	Left Blank	Not an Intersection	Non-Junction	No	No
	Urban	Disabling	Left Blank	Left Blank	Left Blank	Curve	Hillcrest	Left Blank	Left Blank	No	No
	Urban	Functional	Left Blank	Left Blank	Left Blank	Straight	Level	Left Blank	Left Blank	No	No



GIS-DERIVED RESERVATION	GIS-DERIVED STATE HIGHWAY TRANSPORTATION DISTRICT	GIS-DERIVED STATE POLICE DISTRICT	GIS-DERIVED STATE HIGHWAY MAINTENANCE DISTRICT	GIS-DERIVED UTM X COORDINATE	GIS-DERIVED UTM Y COORDINATE	GIS-DERIVED LATITUDE COORDINATE	GIS-DERIVED LONGITUDE COORDINATE	ORIGINAL LATITUDE	ORIGINAL LONGITUDE	ORIGINAL UCR NUMBER
	3	5	3	351272.7631	3879948.497	35.051306	-106.630801			
	3	5	3	350984.0206	3879758.939	35.049555	-106.633932			
	3	5	3	351267.6287	3879812.08	35.050076	-106.630833			
	3	5	3	351272.7631	3879948.497	35.051306	-106.630801			
	3	5	3	351272.7631	3879948.497	35.051306	-106.630801			
	3	5	3	350984.0206	3879758.939	35.049555	-106.633932			
	3	5	3	351267.6287	3879812.08	35.050076	-106.630833			
	3	5	3	351267.6287	3879812.08	35.050076	-106.630833			
	3	5	3	350868.508	3879870.144	35.05054	-106.635218			
	3	5	3	351272.7639	3879948.507	35.051306	-106.630801			
	3	5	3	350867.3925	3879713.068	35.049124	-106.635202			
	3	5	3	351272.7639	3879948.507	35.051306	-106.630801			
	3	5	3	351272.7639	3879948.507	35.051306	-106.630801			
	3	5	3	351275.2194	3879814.116	35.050095	-106.63075			
	3	5	3	351267.6146	3879812.132	35.050076	-106.630833			
	3	5	3	350868.5282	3879870.155	35.05054	-106.635218			
	3	5	3	350868.5282	3879870.155	35.05054	-106.635218			
	3	5	3	351267.6287	3879812.08	35.050076	-106.630833			
	3	5	3	351267.6287	3879812.08	35.050076	-106.630833			
	3	5	3	351272.7631	3879948.497	35.051306	-106.630801			
	3	5	3	350867.3928	3879713.115	35.049124	-106.635202			
	3	5	3	351272.7631	3879948.497	35.051306	-106.630801	35.051377	-106.63086	
	3	5	3	350984.0206	3879758.939	35.049555	-106.633932			
	3	5	3	351272.7631	3879948.497	35.051306	-106.630801			
	3	5	3	351272.7631	3879948.497	35.051306	-106.630801			
	3	5	3	351267.6287	3879812.08	35.050076	-106.630833			
	3	5	3	350984.0206	3879758.939	35.049555	-106.633932			
	3	5	3	350868.5283	3879870.156	35.05054	-106.635218			
	3	5	3	350868.1498	3879817.809	35.050068	-106.635213			
	3	5	3	350868.5282	3879909.016	35.05089	-106.635225			
	3	5	3	351272.7631	3879948.497	35.051306	-106.630801			
	3	5	3	351272.7631	3879948.497	35.051306	-106.630801			
	3	5	3	351163.1597	3879812.623	35.050065	-106.631978			
	3	5	3	350867.3928	3879713.115	35.049124	-106.635202			
	3	5	3	351267.6287	3879812.08	35.050076	-106.630833			

CASE NUMBER	STATION REPORT	TRACS DATA
710454620	Left Blank	Yes
710444688	Left Blank	Yes
710549496	Left Blank	Yes
180010437	Yes	No
710550759	Left Blank	Yes
710542753	Left Blank	Yes
710541719	Left Blank	Yes
710549548	Left Blank	Yes
710579988	Left Blank	Yes
710577593	Left Blank	Yes
710552833	Left Blank	Yes
190018454	Yes	No
710577544	Left Blank	Yes
190021513	Yes	No
190099945	Yes	No
710573680	Left Blank	Yes
710759923	Left Blank	Yes
710583972	Left Blank	Yes
710564860	Left Blank	Yes
710581898	Left Blank	Yes
200062701	Left Blank	Yes
AP210086298	Yes	No
210018353	Left Blank	Yes
210060487	Left Blank	Yes
210014229	Left Blank	Yes
210087143	Left Blank	Yes
AP210007647	Left Blank	Yes
220053955	Left Blank	Yes
220003939	Left Blank	Yes
220056393	Left Blank	Yes
220051731	Left Blank	Yes
220065677	Left Blank	Yes
220028313	Left Blank	Yes
220088077	Yes	No
SO22040005413	No	No

## Appendix 13



<b>Project Name</b>
Opus Transport Apartments
<b>Intersection</b>
Woodward Rd. at University Blvd.
<b>Analysis Year</b>
2025

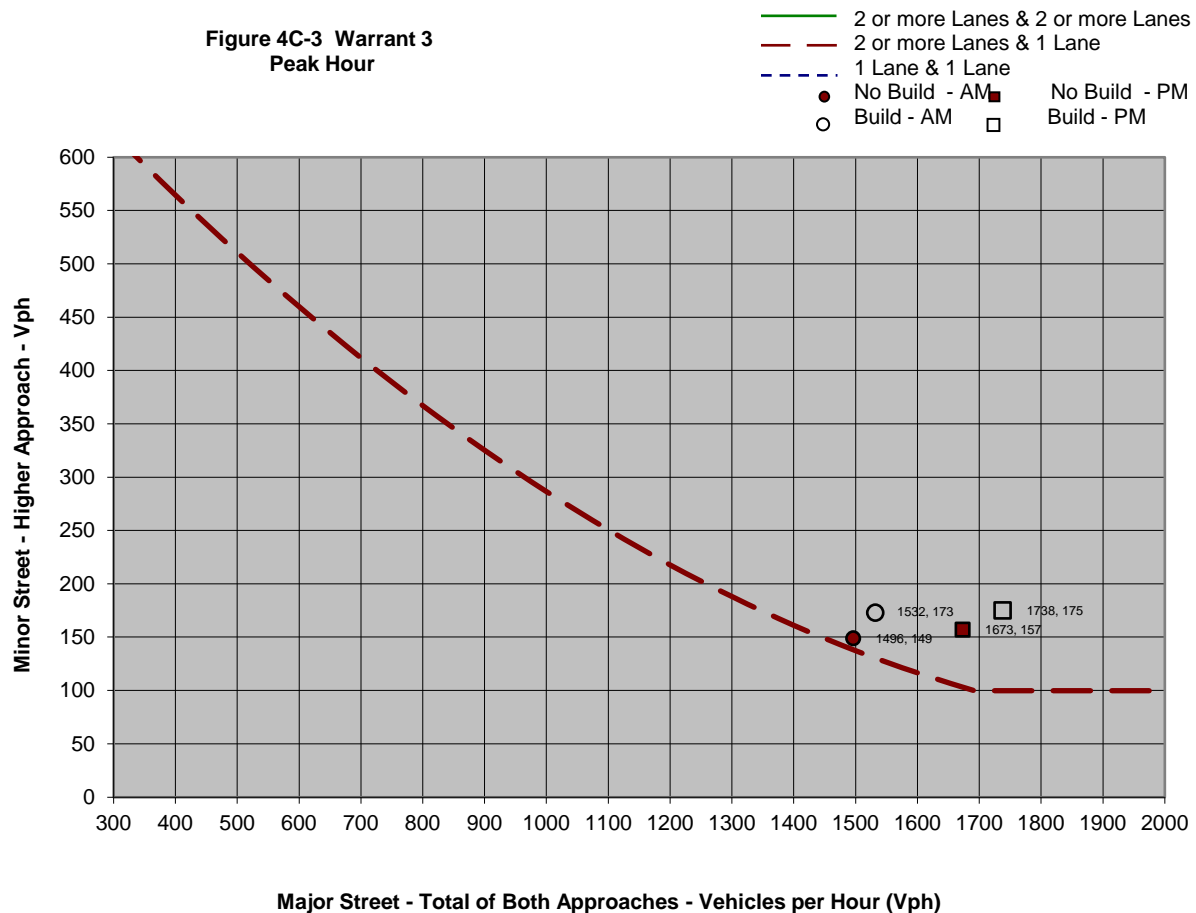
#### Number of Lanes

Major St.	2
Minor St.	1

#### Analysis Year Traffic Volumes

AM	Major	Minor	PM	Major	Minor
No Build	1496	149	No Build	1673	157
Build	1532	173	Build	1738	175

**Figure 4C-3 Warrant 3  
Peak Hour**



Comments -