Traffic Impact Analysis

Apache Trails
Multi-Family Residential

Plaza Drive & Apache Trail

Apache Junction, Arizona

January 2025

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Prepared by:

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EPS Project #: 24-0336

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EXECUTIVE SUMMARY

INTRODUCTION

The multi-family residential development is proposed east of Plaza Drive between Superstition Boulevard and Apache Trail in Apache Junction, Arizona. The development is proposed with three-story buildings primarily consisting of one and two-bedroom units with a total of 336 dwelling units. The primary access is proposed on Apache Trail. A secondary access is proposed on Plaza Drive aligning with the existing RV Resort driveway and will be limited to a southbound left-in and westbound right-out only. Both entrances will be gate controlled. The traffic impact analysis was prepared in accordance with the requirements of the City of Apache Junction. The proposed development generates more than 100 peak hour trips. The analysis study years include existing conditions and horizon years 2026 and 2031. An annual 5% growth rate was used to estimate the growth of background traffic in the horizon years.

TRIP GENERATION

Full build-out of the proposed development is anticipated to generate 2,265 weekday daily trips (entering/exiting) with 134 trips (entering/exiting) during the AM peak hour and 171 trips (entering/exiting) during the PM peak hour.

When compared to a shopping center use allowed under B-3 zoning, the proposed multi-family development generates 5,211 fewer daily trips, 36 fewer AM peak hour trips, and 516 fewer PM peak hour trips.

LEVEL-OF-SERVICE

The study intersections operate at acceptable levels of service with existing conditions.

With trips from the proposed development, the study intersections will continue to operate at acceptable levels of service in both horizon years 2026 and 2031 with the existing lane configuration and traffic control.

SITE ACCESS

A full access driveway is proposed on Apache Trail. A secondary driveway is proposed on Plaza Drive aligning with the existing RV Resort driveway and will be limited to a southbound left-in and westbound right-out only. The driveways will be controlled by a stop sign. Both Plaza Drive and Apache Trail are low volume roadways with a projected daily traffic volume less than 3,000 vpd on Plaza Drive and less than 4,600 vpd on Apache Trail. The posted speed limit on Apache Trail is 15 mph. A speed limit sign of 15 mph is provided on Plaza Drive for the existing Lost Dutchman RV Resort.

As part of the proposed development, half-street improvement will be provided on Apache Trail adjacent to the property. Half-street improvements will also be provided on Plaza Drive, which will include the provision of angled on-street parking in the northbound direction.

INTRODUCTION

A traffic impact analysis is required during the development review process to assess the impacts of the proposed project on the surrounding transportation system. EPS Group has been retained to prepare the traffic impact analysis for the proposed multifamily project.

The development is proposed east of Plaza Drive between Superstition Boulevard and Apache Trail in Apache Junction, Arizona. The development is proposed with three-story buildings primarily consisting of one and two-bedroom units with a total of 336 dwelling units. The primary access is proposed on Apache Trail. A secondary access is proposed on Plaza Drive aligning with the existing RV Resort driveway. Both entrances will be gate controlled. **Figure 1** provides a location map, and an aerial map is provided in **Figure 2**.

SCOPE OF STUDY

The traffic impact analysis was prepared in accordance with the requirements of the City of Apache Junction. The proposed development generates more than 100 peak hour trips. The analysis study years include existing conditions and horizon years 2026 and 2031. An annual 5% growth rate was used to estimate the growth of background traffic in the horizon years. The objectives of the study are the following:

- Document and evaluate existing traffic conditions
- Estimate and evaluate future non-site 2026 and 2031 traffic conditions
- Estimate new traffic generated by the proposed development and assign new trips to street system
- Evaluate operation of adjacent streets and intersections with the proposed development
- Determine the need for modified traffic control and auxiliary lanes at the study intersections
- Review driveway design, spacing, and on-site circulation

STUDY INTERSECTIONS

The following intersections are included in the study area:

- Plaza Drive & Superstition Boulevard
- Plaza Drive & Existing Driveway/Site Access A
- Idaho Road & Apache Trail
- Apache Trail/Phelps Drive & Old West Highway
- Apache Trail & Site Access B

EXISTING CONDITIONS

SURROUNDING LAND USE

The proposed site is currently vacant. The existing Lost Dutchman RV Resort is on the west side of Plaza Drive opposite of the site. Retail uses and a public park border the site to the south. Horizon Health and Wellness borders the site to the north along with a United States Postal Service (USPS) office.

DESCRIPTION OF EXISTING TRANSPORTATION SYSTEM

The existing roadway geometry and intersection control is depicted in **Figure 3**. Access to the proposed development is proposed on Plaza Drive and Apache Trail.

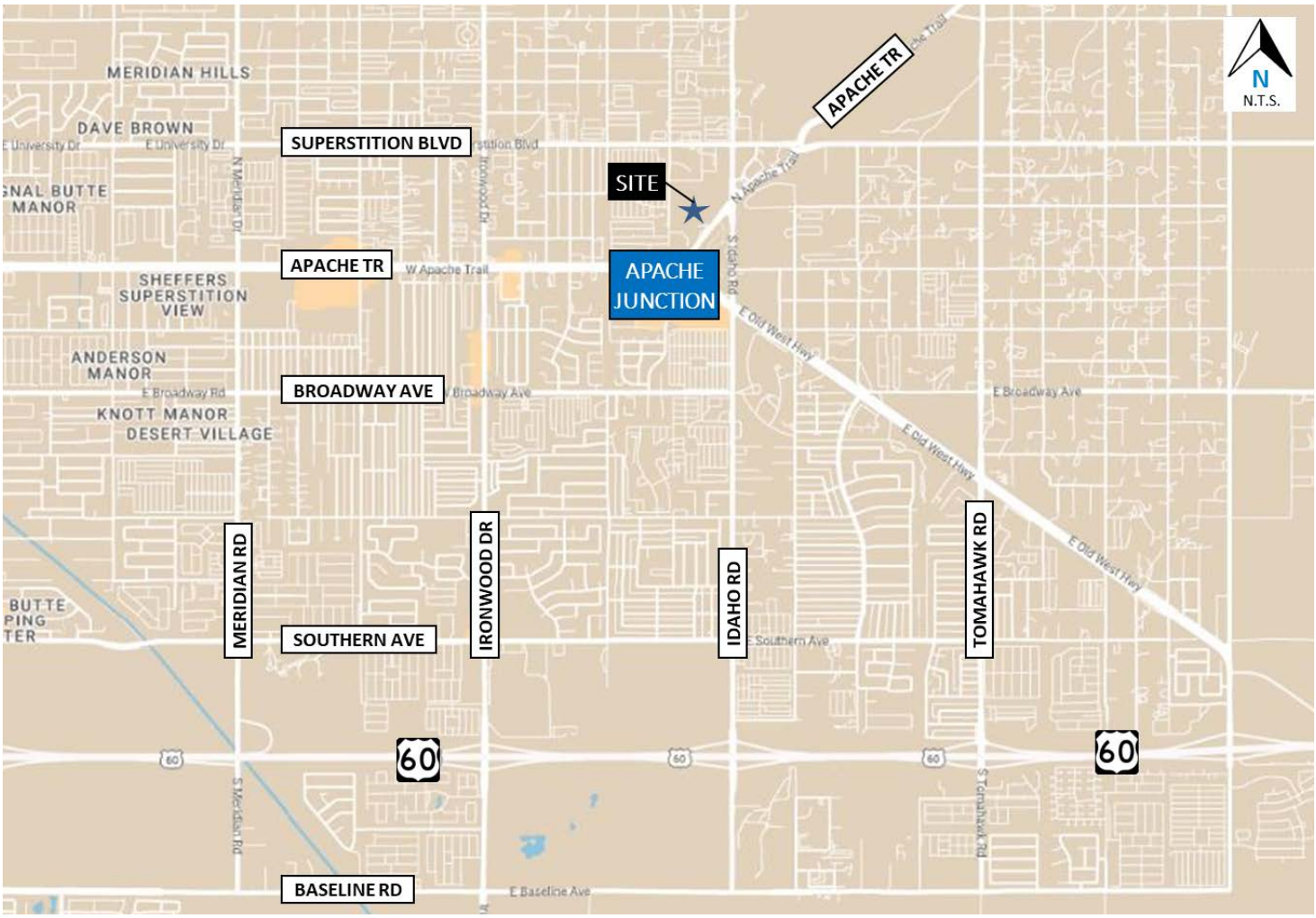

Figure 1: Location Map

Figure 2: Aerial Map

STUDY INTERSECTIONS

The existing intersection lane configuration and traffic control is depicted in **Figure 3**, and the traffic control is also summarized in **Table 1**.

Table 1: Existing Intersection Traffic Control

Intersection	Traffic Control
1. Plaza Drive & Superstition Boulevard	Minor Street Stop Control (NB/SB)
2. Plaza Drive & Existing Driveway	Minor Street Stop Control (EB)
3. Idaho Road & Apache Trail	Traffic Signal
4. Apache Trail/Phelps Drive & Old West Highway	Traffic Signal

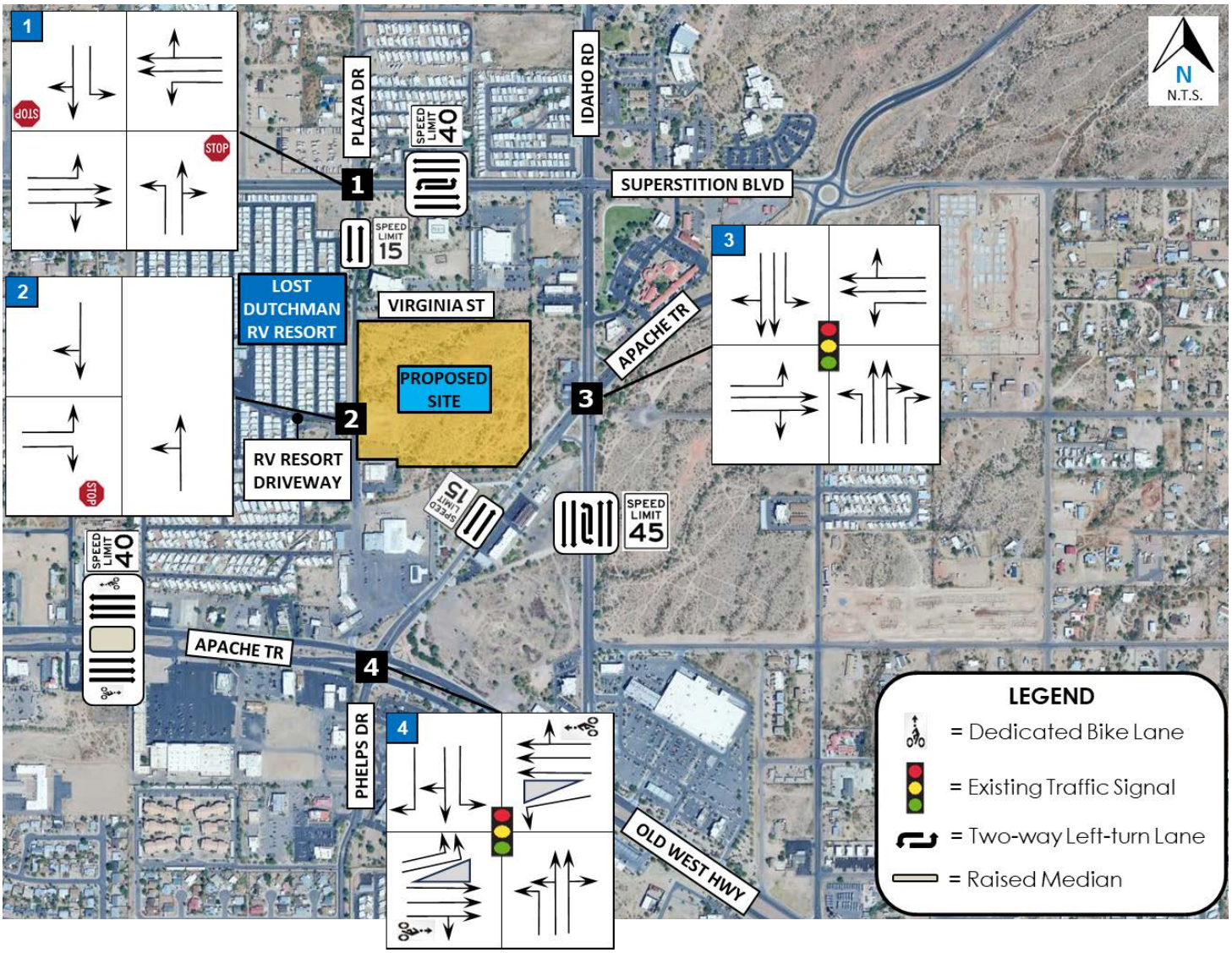

Figure 3: Existing Lane Configuration and Traffic Control

ROADWAYS

Plaza Drive

Plaza Drive is a local roadway with one lane in each direction providing access to the Lost Dutchman RV Resort and a commercial area south of the site. The posted speed limit is 15 mph near the site. Per the October 2024 counts conducted for this study, the daily traffic volume on Plaza Drive is 1,415 vpd south of Superstition Boulevard.

Apache Trail

Apache Trail runs east/west before heading northeast at Phelps Drive and towards the site continuing onto the lakes and recreation areas. Per the October 2024 counts conducted for this study, the daily traffic volume on Apache Trail is 2,447 vpd southwest of Idaho Road. Near the site, Apache Trail is two lanes with one in each direction and flares out at the signalized intersections at Idaho Road and Old West Highway. Angled parking is provided on Apache Trail Adjacent to the public park south of the site. The posted speed limit is 15 mph adjacent to the site.

EXISTING TRAFFIC VOLUMES

Segment counts in each direction were collected on Thursday September 12, 2024 for 24 hours in 15-minute intervals on at the following locations:

- Plaza Drive south of Superstition Boulevard
- Idaho Road south of Superstition Boulevard
- Apache Trail southwest of Idaho Road

Turning movement traffic counts were also obtained on Thursday September 12, 2024 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at the following study intersections:

1.	Plaza Drive & Superstition Boulevard
2.	Plaza Drive & Existing Driveway
3.	Idaho Road & Apache Trail
4.	Apache Trail/Phelps Drive & Old West Highway

Figure 4 depicts the existing weekday traffic volumes. The existing traffic volumes are provided in **Appendix B** to this report.

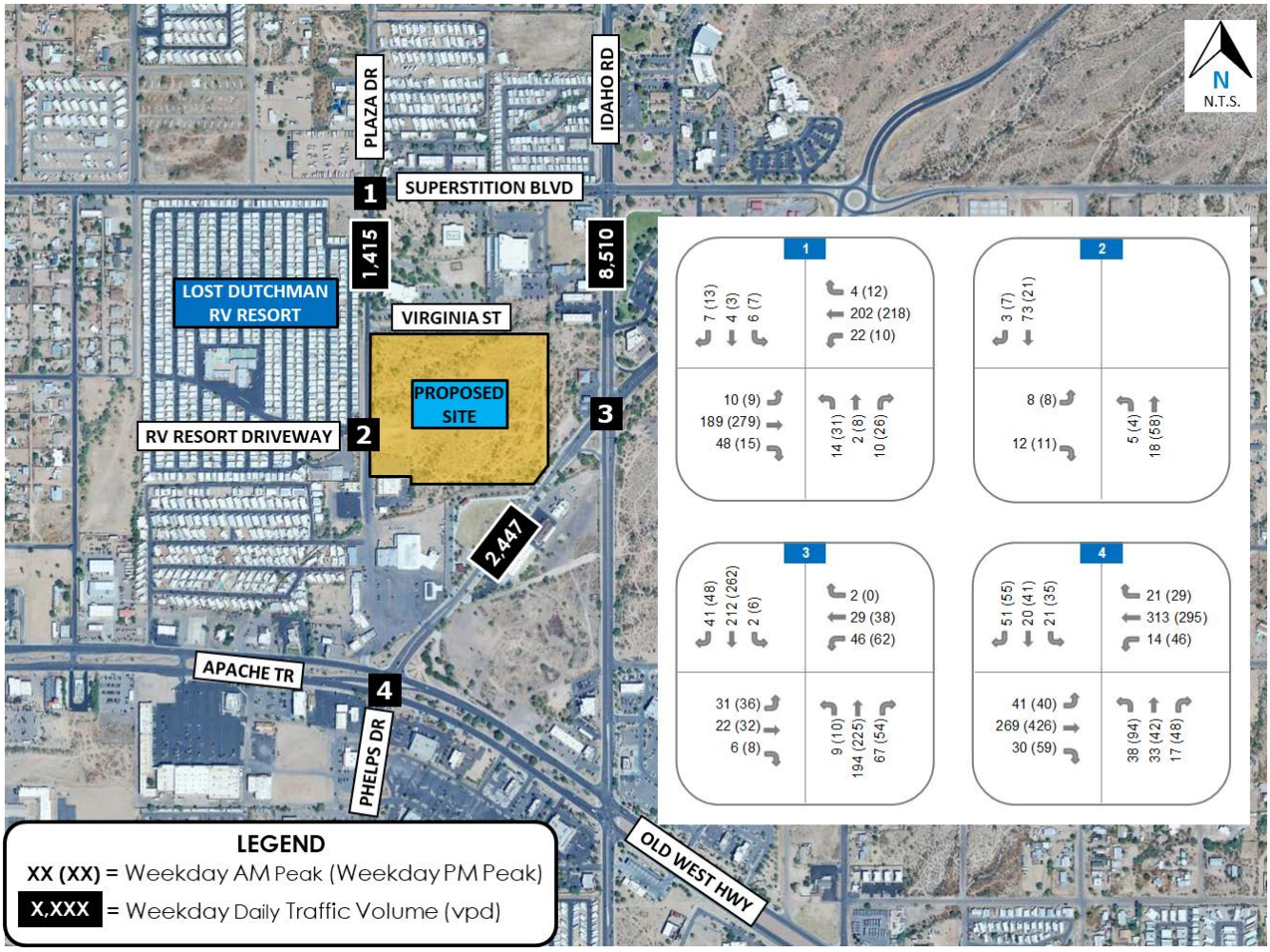

Figure 4: Existing Weekday Traffic Volumes

EXISTING LEVEL-OF-SERVICE ANALYSIS

The ability of a transportation system to transmit the transportation demand is characterized as its level-of-service (LOS). Level-of-service is a rating system from "A", representing the best operation with the least delay, to "F", representing the worst operation with the greatest delay. The appropriate reference for level-of-service operation is the *Highway Capacity Manual*, 7th *Edition* published by the Transportation Research Board in 2022.

This manual considers the average delay per vehicle as the measure to determine the level-of-service for both signalized and unsignalized intersections. For signalized intersections and for multi-way stop intersections, the delay and level-of-service are calculated for the intersection, each approach, and each turning movement. For unsignalized intersections the level-of-service is defined for each minor movement for two-way stop controls, and is not defined for the major street approaches or for the entire intersection **Figure 5** provides a diagram and **Table 2** lists the level-of-service criteria for both signalized and unsignalized intersections as stated in the *Highway Capacity Manual*.

Figure 5: Level-of-Service Criteria for Intersections

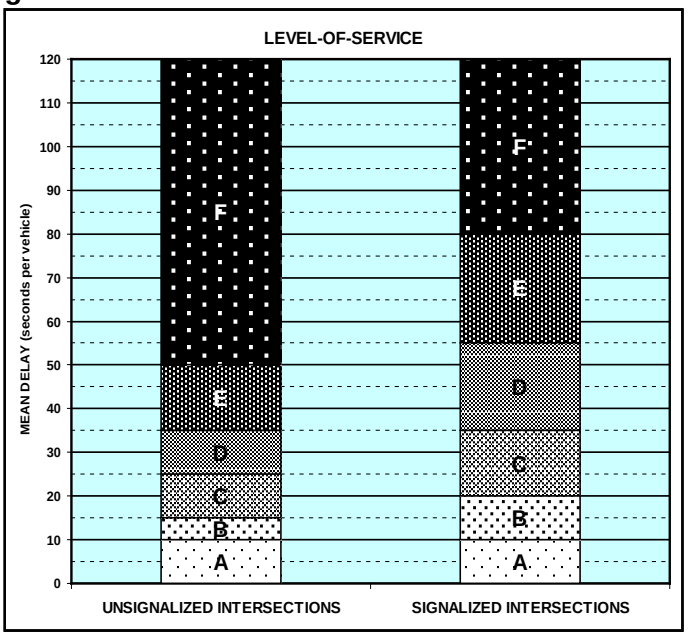

Table 2: Level-of-Service Criteria for Intersections

	Average Delay (seconds per vehicle)	
Level-of-Service	Unsignalized	Signalized
A	≤ 10	≤ 10
B	> 10 to 15	> 10 to 20
C	> 15 to 25	> 20 to 35
D	> 25 to 35	> 35 to 55
E	> 35 to 50	> 55 to 80
F	> 50	> 80

Level-of-service (LOS) analyses were prepared for the AM and PM peak hours for the study intersections utilizing Synchro software. The analysis worksheets are included in **Appendix C**. A summary of the level-of-service analysis for the existing conditions is provided in **Table 3**. The study intersections operate at acceptable levels of service with existing conditions.

Table 3: Existing Level-of-Service Analysis

Intersection	Traffic Control	Movement/ Approach	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1 Plaza Dr & Superstition Blvd	Minor Street Stop Control (NB/SB)					
		EB Left	7.7	A	7.8	A
		WB Left	7.8	A	7.9	A
		NB Left	12.4	B	13.5	B
		NB Thru/Right	9.8	A	10.6	B
		SB Left	12.0	B	12.8	B
		SB Thru/Right	10.6	B	10.0	A
2 Plaza Dr & Existing RV Resort Driveway	Minor Street Stop Control (EB)					
		EB Approach	*8.9*	*A*	*8.8*	*A*
		NB Left	7.4	A	7.3	A
3 Idaho Rd & Apache Tr	Traffic Signal					
		EB Left	7.9	A	33.0	C
		EB Thru	6.6	A	31.7	C
		EB Right	6.6	A	31.7	C
		EB Approach	*7.3*	*A*	*32.3*	*C*
		WB Left	8.1	A	34.3	C
		WB Right	7.2	A	31.5	C
		WB Right	7.2	A	31.5	C
		WB Approach	*7.7*	*A*	*33.2*	*C*
		NB Left	6.2	A	2.9	A
		NB Thru	4.8	A	2.6	A
		NB Right	2.9	A	2.5	A
		NB Approach	*4.4*	*A*	*2.6*	*A*
		SB Left	2.9	A	2.7	A
		SB Thru	6.5	A	2.8	A
		SB Right	4.4	A	2.8	A
		SB Approach	*4.4*	*A*	*2.8*	*A*
		INTERSECTION	5.0	A	9.5	*A*
4 Apache Tr/Phelps Rd & Old West Hwy/Apache Tr	Traffic Signal					
		EB Left	36.4	D	39.1	D
		EB Thru	29.8	C	32.3	C
		EB Right	30.4	C	33.5	C
		EB Approach	*30.8*	*C*	*33.2*	*C*
		WB Left	47.1	D	48.1	D
		WB Right	32.2	C	30.3	C
		WB Right	33.3	C	30.8	C
		WB Approach	*33.1*	*C*	*32.7*	*C*
		NB Left	11.1	B	13.0	B
		NB Thru	12.2	B	14.9	B
		NB Right	12.2	B	15.0	B
		NB Approach	*11.7*	*B*	*14.3*	*B*
		SB Left	11.3	B	13.3	B
		SB Thru	12.5	B	15.3	B
		SB Right	12.5	B	15.4	B
		SB Approach	*12.3*	*B*	*14.8*	*B*
		INTERSECTION	27.7	C	28.0	*C*

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PROPOSED DEVELOPMENT

SITE LOCATION, LAND USE, AND ACCESS

The multifamily residential development is proposed east of Plaza Drive between Superstition Boulevard and Apache Trail in Apache Junction, Arizona. The development is proposed with three-story buildings primarily consisting of one and two-bedroom units with a total of 336 dwelling units. The primary access is proposed on Apache Trail. A secondary access is proposed on Plaza Drive aligning with the existing RV Resort driveway and will be limited to a southbound left-in and westbound right-out only. Both entrances will be gate controlled. **Figure 6** depicts the site plan. The detailed site plan is included in **Appendix A**.

TRIP GENERATION

The trip generation for the project was estimated utilizing the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition*. The manual contains data collected by various transportation professionals for a wide range of different land uses. The data summarized in the manual include average rates and equations that have been established correlating the relationship between an independent variable that describes the development size and generated trips for each categorized land use. The manual provides information for daily and peak hour trips.

Table 4 summarizes the trip generation for the proposed development, and **Appendix D** provides the generated trip calculation.

Table 4: Trip Generation

DESCRIPTION OF LAND USE				GENERATED TRIPS						
				DAILY	AM PEAK HOUR			PM PEAK HOUR		
LAND USE	ITE LUC	SIZE		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Multifamily Housing	220	336	DU	2,265	32	102	134	108	63	171

Full build-out of the proposed development is anticipated to generate 2,265 weekday daily trips (entering/exiting) with 134 trips (entering/exiting) during the AM peak hour and 171 trips (entering/exiting) during the PM peak hour.

TRIP GENERATION COMPARISON

The existing B-3 zoning allows commercial uses. A commercial building size of 202,000 square feet (25% FAR) was utilized to compare potential trips generated with the existing zoning to the proposed development.

Table 5 summarizes the trip generation comparison to a shopping center use. When compared to a shopping center use allowed under B-3 zoning, the proposed multi-family development generates 5,211 fewer daily trips, 36 fewer AM peak hour trips, and 516 fewer PM peak hour trips. When compared to an office use, the proposed multi-family development generates 126 more daily trips, 172 fewer AM peak hour trips and 127 fewer evening peak hour trips.

Table 5: Trip Generation Comparison – Shopping Center

DESCRIPTION OF LAND USE				VEHICLE GENERATED TRIPS						
				Daily	AM Peak Hour			PM Peak Hour		
Land Use	ITE LUC	SIZE		Total	Enter	Exit	Total	Enter	Exit	Total
Multifamily Housing	220	336	DU	2,265	32	102	134	108	63	171
Shopping Center	820	202,000	SF	7,476	105	65	170	330	357	687
		Difference		***-5,211***	***-73***	***37***	***-36***	***-222***	***-294***	***-516***

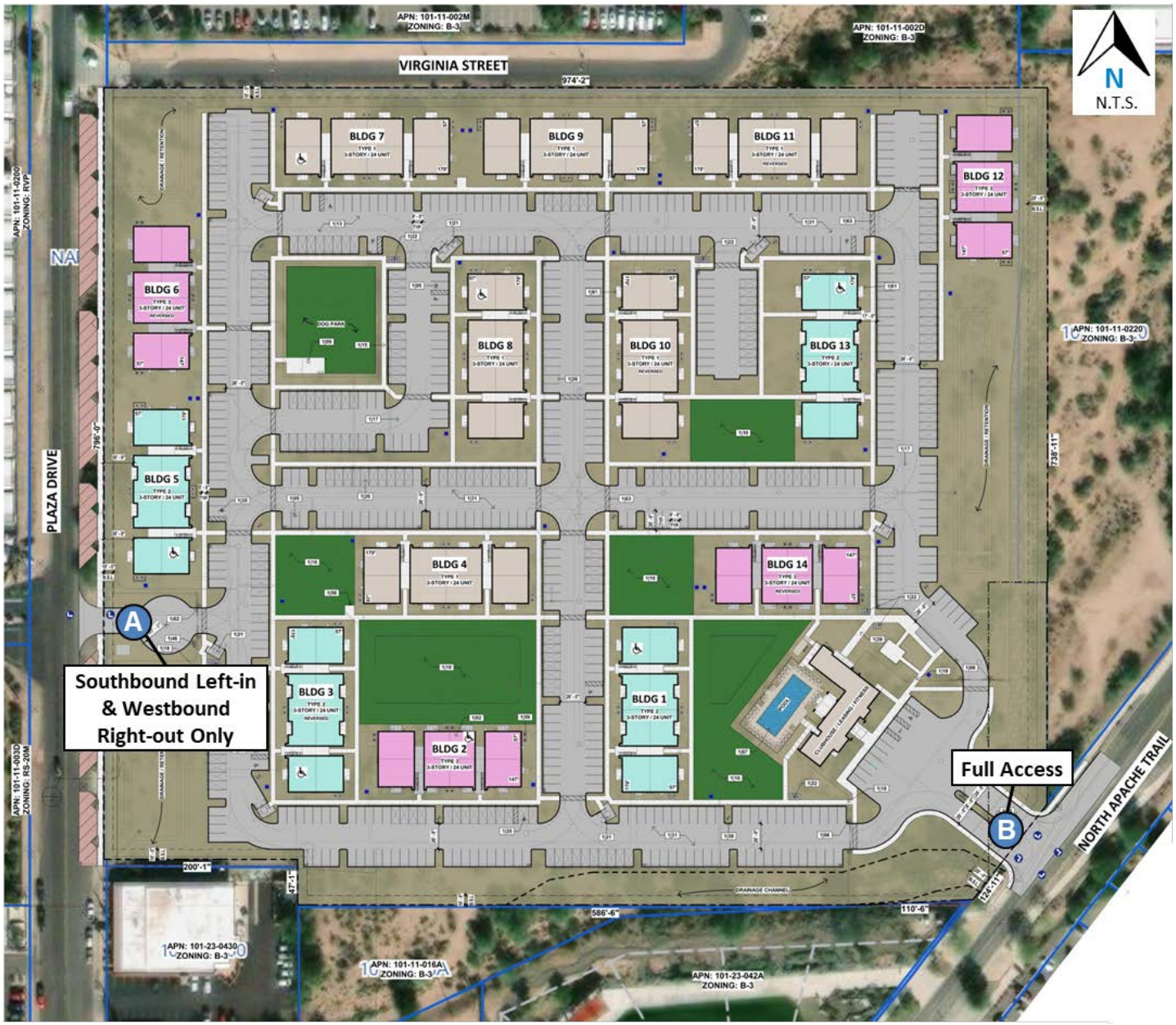


Figure 6: Site Plan

TRIP DISTRIBUTION AND ASSIGNMENT

The generated trips for the proposed development have been distributed and assigned to the surrounding street system to estimate future traffic from the development. The distribution was based on existing traffic patterns and employment centers. The majority of traffic was assumed to travel west and south. The distribution percentages utilized in this analysis depicted in **Figure 7**. Utilizing the trip generation and distribution, new trips from the proposed development were assigned to the study intersections and are depicted in **Figure 8**.

FUTURE TRAFFIC

An annual growth rate of 5.0 percent was applied to the existing traffic volumes to capture growth through horizon years 2026 and 2031. The peak hour background without site traffic volumes are depicted in **Figure 9** for the 2026 horizon year and in **Figure 10** for the 2031 horizon year.

Full build-out of the site was assumed for opening year in this analysis. The total weekday traffic volumes with the site are depicted in **Figure 11** and **Figure 12** for horizon years 2026 and 2031 respectively.

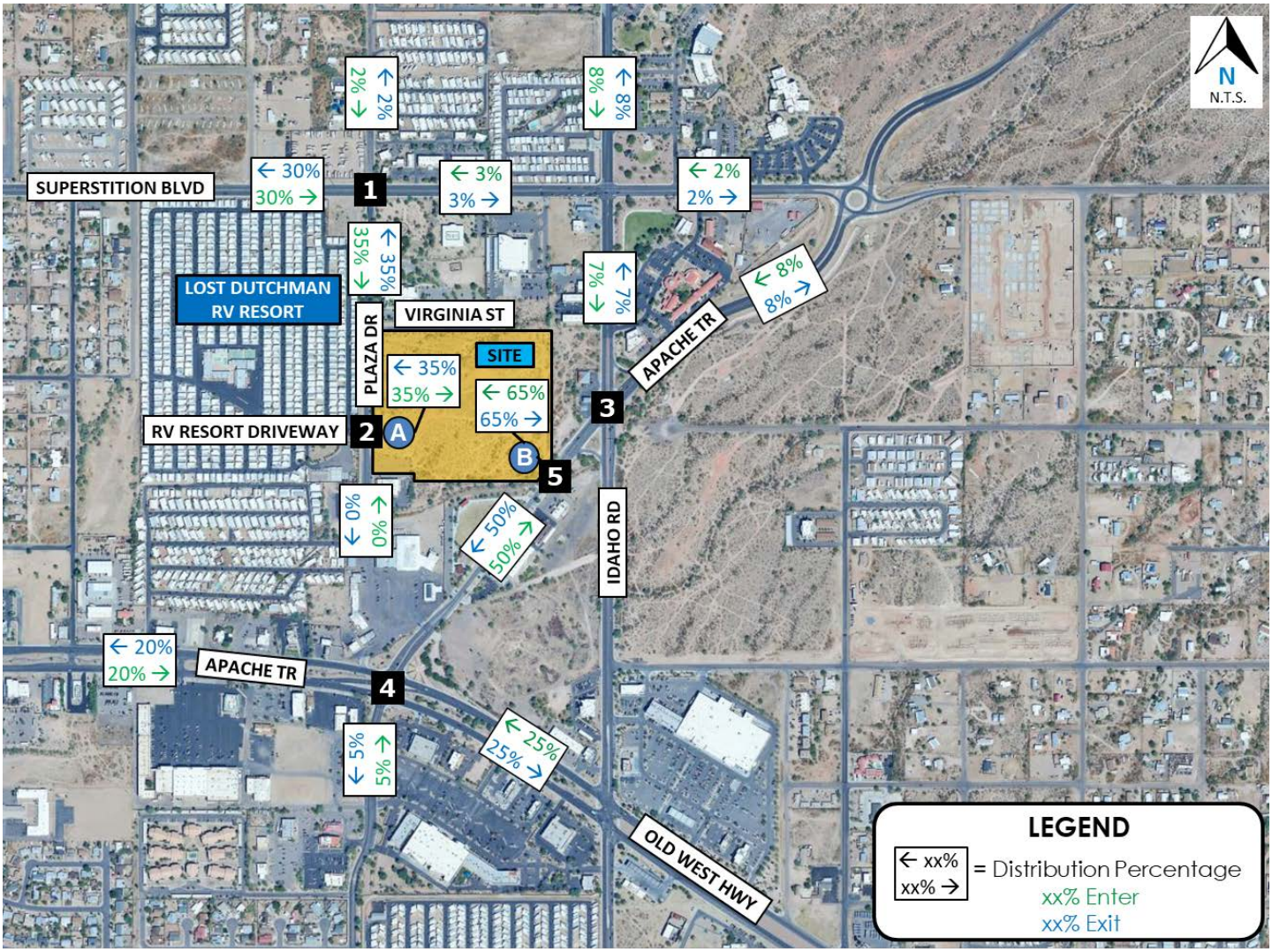


Figure 7: Multifamily Residential Trip Distribution

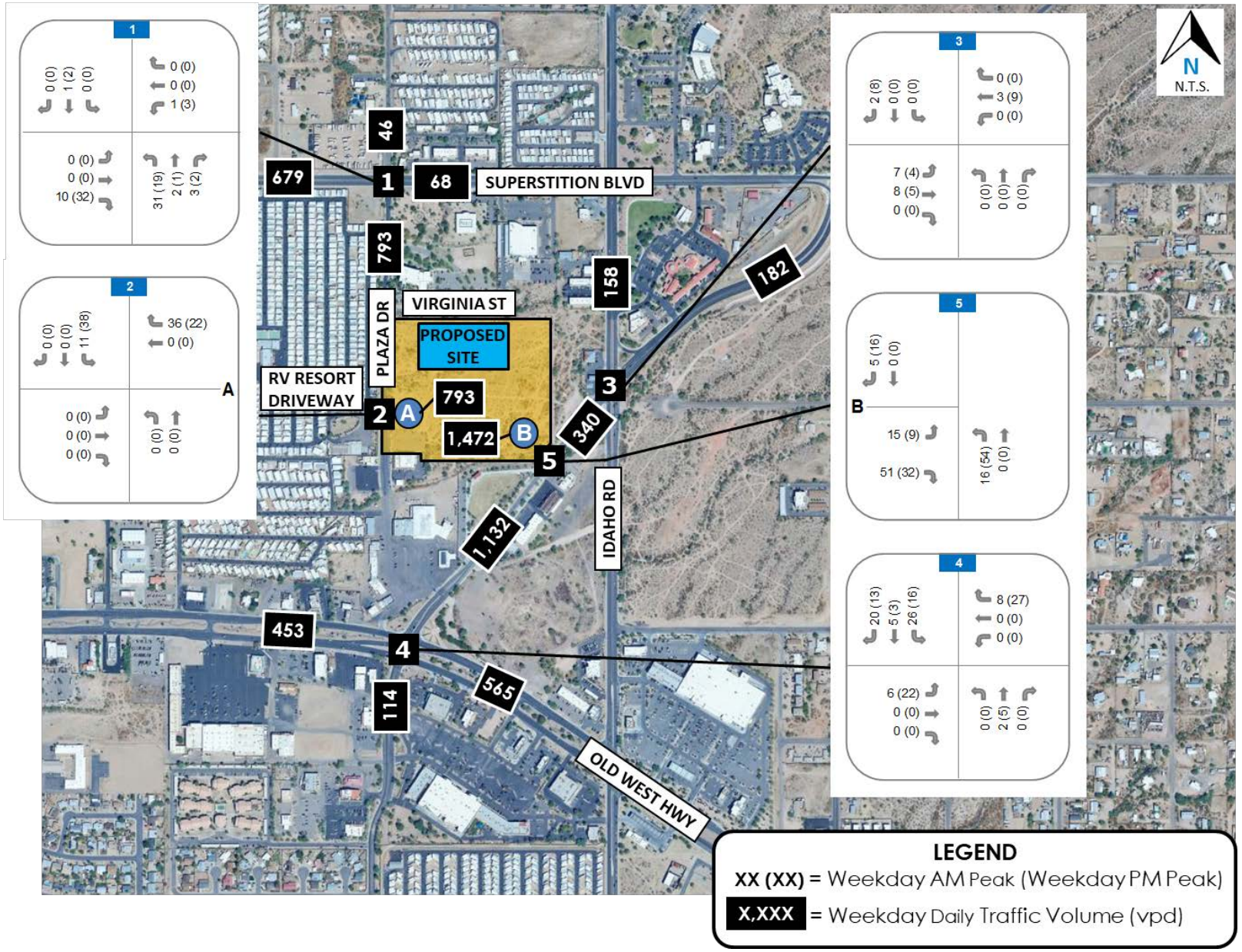


Figure 8: Site Weekday Traffic Volumes

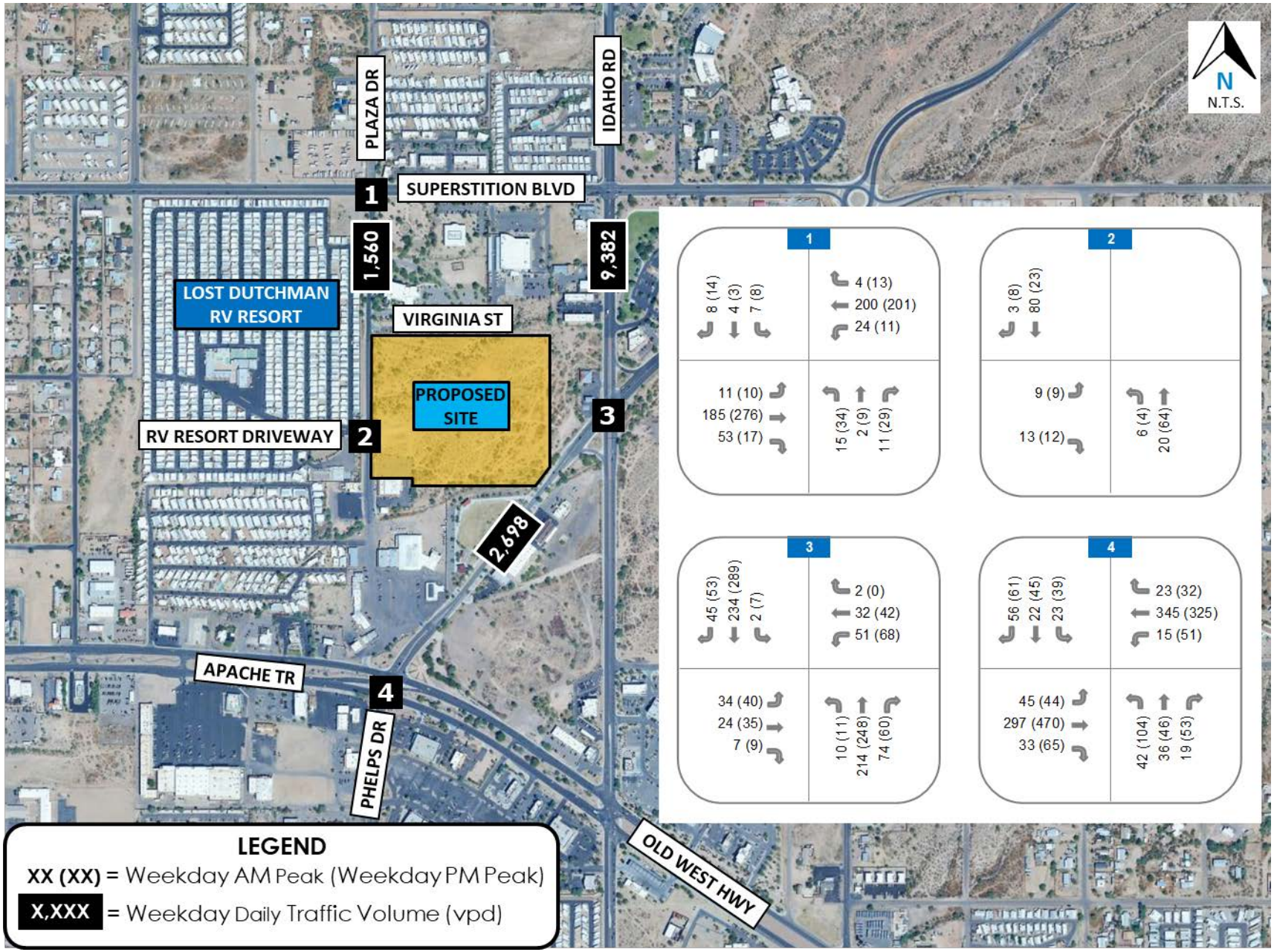


Figure 9: 2026 Background without Site Weekday Traffic Volumes

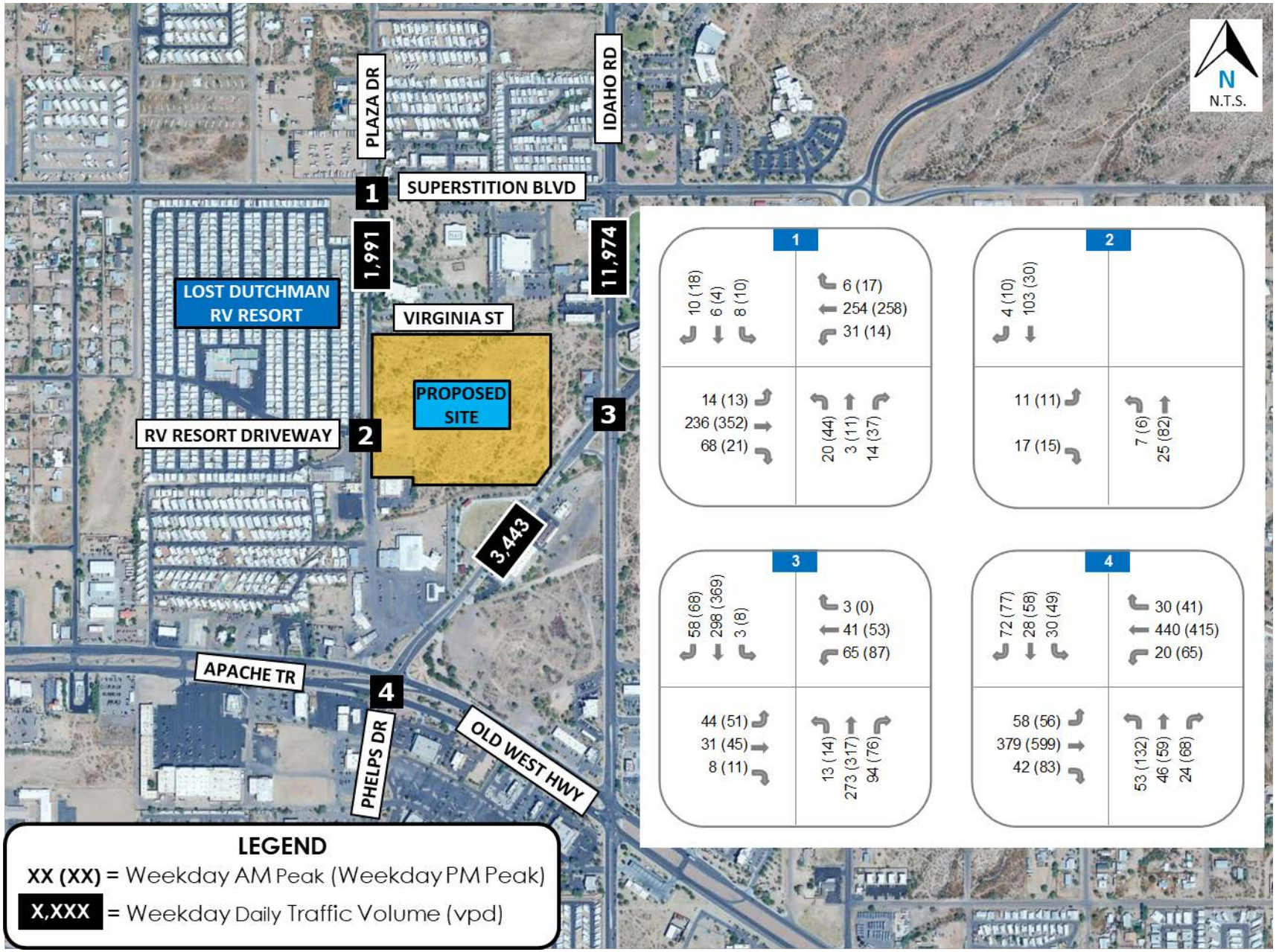


Figure 10: 2031 Background without Site Weekday Traffic Volumes

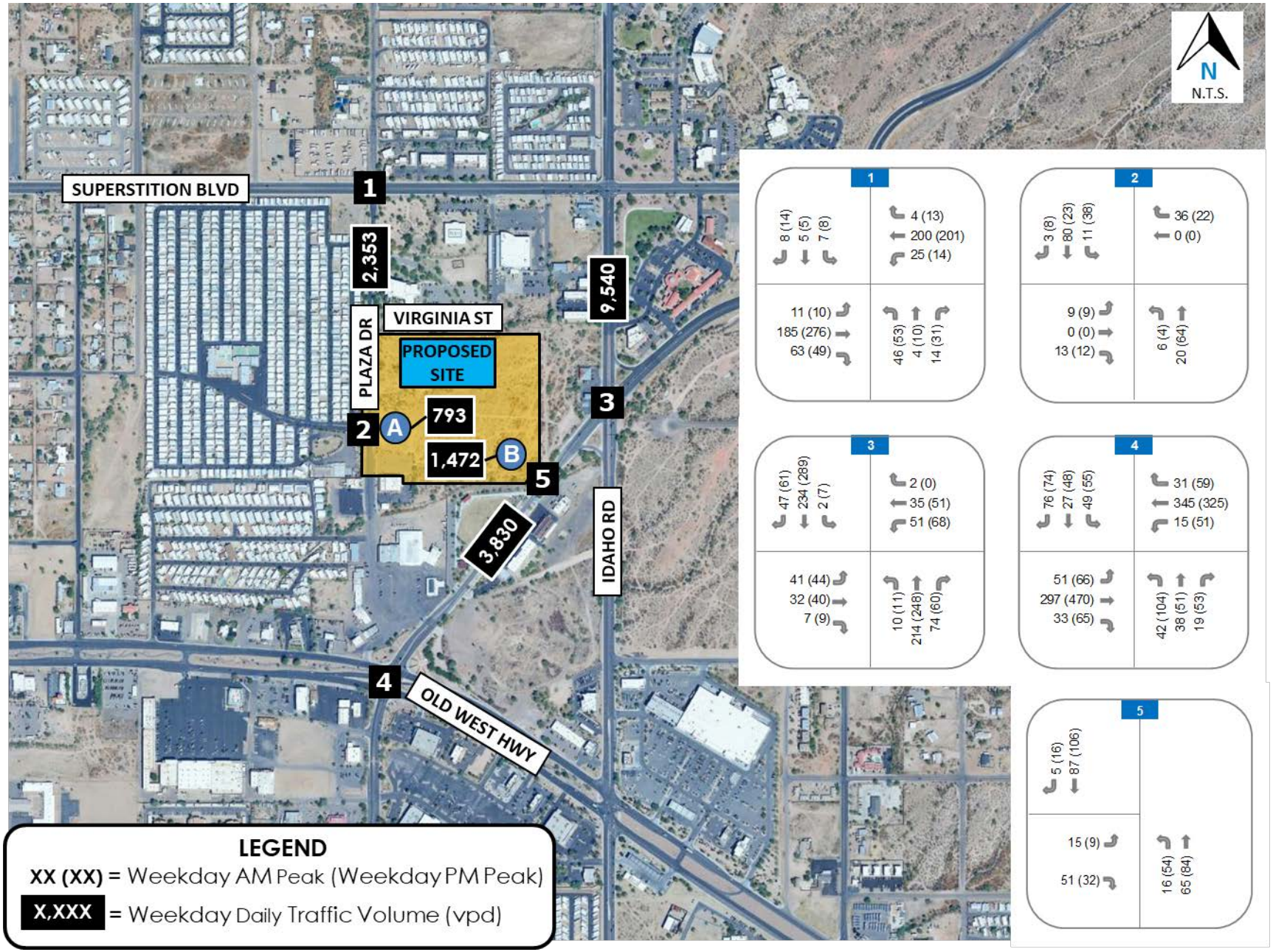


Figure 11: 2026 Total (Background with Site) Traffic Volumes

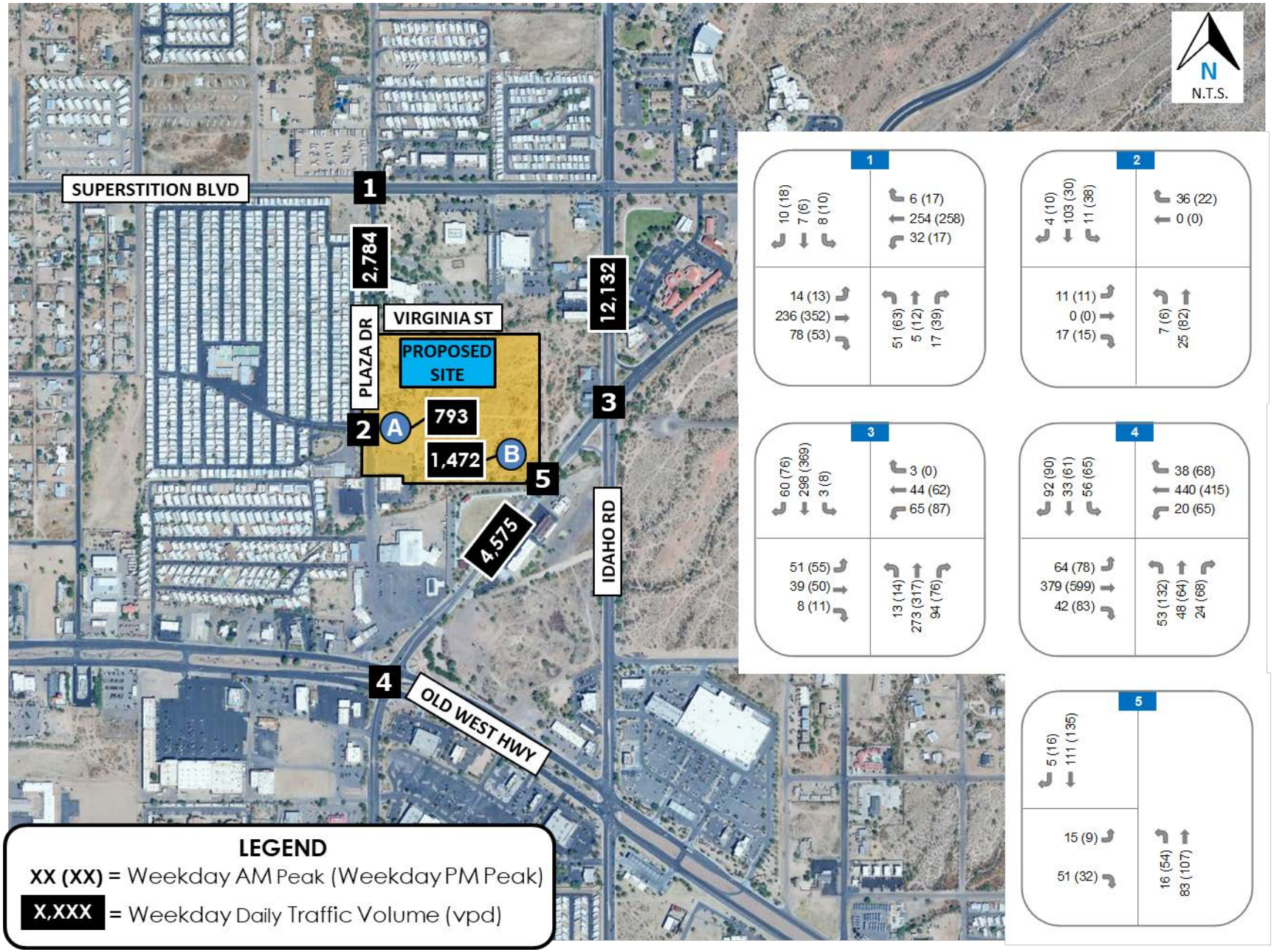


Figure 12: 2031 Total (Background with Site) Traffic Volumes

FUTURE TRAFFIC ANALYSES

FUTURE LEVEL-OF-SERVICE

The level-of-service for the future 2026 and 2031 horizon years was analyzed for the study intersections. Synchro software was utilized to calculate the average delay and level-of-service. The input and output for these analyses are provided in **Appendix E** and **Appendix F**. **Table 6** and **Table 7** summarize the LOS for horizon years 2026 and 2031 respectively.

With trips from the proposed development, the study intersections will continue to operate at acceptable levels of service in both horizon years 2026 and 2031 with the existing lane configuration and traffic control.

TRANSPORTATION IMPROVEMENTS

As part of the proposed development, half-street improvement will be provided on Apache Trail adjacent to the property. Half-street improvements will also be provided on Plaza Drive, which will include the provision of angled on-street parking in the northbound direction. No additional improvements or mitigation are recommended for the study intersections.

SITE ACCESS

A full access driveway is proposed on Apache Trail. A secondary driveway is proposed on Plaza Drive aligning with the existing RV Resort driveway and will be limited to a southbound left-in and westbound right-out only. The driveways will be controlled by a stop sign. Both Plaza Drive and Apache Trail are low volume roadways with a projected daily traffic volume less than 3,000 vpd on Plaza Drive and less than 4,600 vpd on Apache Trail. The posted speed limit on Apache Trail is 15 mph. A speed limit sign of 15 mph is provided on Plaza Drive for the existing Lost Dutchman RV Resort.

Due to the low traffic volumes and posted speed limit of 15 mph, auxiliary lanes are not recommended at the site driveways on Plaza Drive and Apache Trail.

Table 6: Level-of-Service Summary – Horizon Year 2026

Intersection	Traffic Control	Movement/ Approach	2026 Background				2026 Background + Site Full Build-out			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
1										
Plaza Dr & Superstition Blvd	Minor Street Stop Control (NB/SB)	EB Left	7.7	A	7.7	A	7.7	A	7.7	A
		WB Left	7.8	A	7.9	A	7.8	A	8.0	A
		NB Left	12.4	B	13.4	B	13.1	B	14.4	B
		NB Thru/Right	9.7	A	10.6	B	10.1	B	10.9	B
		SB Left	12.1	B	12.7	B	12.2	B	12.8	B
		SB Thru/Right	10.5	B	9.9	A	10.8	B	10.5	B
2										
Plaza Dr & RV Resort Driveway/Site Access A	Minor Street Stop Control (EB/WB)	***EB Approach***	***9.0***	***A***	***8.8***	***A***	***9.2***	***A***	***9.2***	***A***
		WB Right	-		-		8.5	A	8.7	A
		NB Left	7.4	A	7.3	A	7.4	A	7.3	A
		SB Left	-		-		7.3	A	7.4	A
3										
Idaho Rd & Apache Tr	Traffic Signal	EB Left	7.9	A	33.0	C	7.8	A	33.3	C
		EB Thru	6.5	A	31.5	C	7.5	A	31.4	C
		EB Right	6.5	A	31.5	C	7.5	A	31.5	C
		EB Approach	***7.2***	***A***	***32.2***	***C***	***7.6***	***A***	***32.3***	***C***
		WB Left	8.2	A	34.4	C	7.9	A	34.4	C
		WB Thru/Right	7.2	A	31.3	C	7.5	A	31.3	C
		WB Right	7.2	A	31.3	C	7.5	A	31.3	C
		WB Approach	***7.8***	A	***33.2***	C	***7.7***	A	***33.1***	C
		NB Left	6.3	A	3.2	A	6.9	A	3.2	A
		NB Thru/Right	4.8	A	2.7	A	6.1	A	2.8	A
		NB Right	2.8	A	2.7	A	6.2	A	2.7	A
		NB Approach	***4.4***	***A***	***2.7***	***A***	***6.2***	***A***	***2.8***	***A***
		SB Left	6.5	A	2.9	A	6.4	A	3.0	A
		SB Thru/Right	4.4	A	3.0	A	6.6	A	3.1	A
		SB Right	4.4	A	3.0	A	6.6	A	3.1	A
		SB Approach	***4.4***	***A***	***3.0***	***A***	***6.6***	***A***	***3.1***	***A***
		INTERSECTION	**5.0**	**A**	**9.6**	**A**	**6.7**	**A**	**10.0**	***A***
4										
Apache Tr/Phelps Rd & Old West Hwy/Apache Tr	Traffic Signal	EB Left	36.9	D	39.9	D	37.8	D	40.1	D
		EB Thru	29.8	C	32.4	C	30.2	C	32.7	C
		EB Right	30.4	C	33.6	C	30.8	C	34.0	C
		EB Approach	***30.8***	***C***	***33.4***	***C***	***31.4***	***C***	***33.9***	***C***
		WB Left	47.3	D	50.2	D	48.4	D	50.8	D
		WB Right	32.2	C	30.3	C	33.0	C	31.5	C
		WB Right	33.3	C	30.7	C	34.2	C	32.3	C
		WB Approach	***33.2***	***C***	***32.9***	***C***	***34.0***	***C***	***34.0***	***C***
		NB Left	11.5	B	13.6	B	11.9	B	13.6	B
		NB Thru	12.7	B	15.8	B	13.6	B	16.1	B
		NB Right	12.8	B	15.9	B	13.6	B	16.3	B
		NB Approach	***12.4***	***B***	***15.1***	***B***	***13.1***	***B***	***15.4***	***B***
		SB Left	11.7	B	13.9	B	11.7	B	13.7	B
		SB Thru	13.1	B	16.1	B	13.3	B	16.2	B
		SB Right	13.1	B	16.3	B	13.3	B	16.3	B
		SB Approach	***12.8***	***B***	***15.6***	***B***	***12.8***	***B***	***15.5***	***B***
		INTERSECTION	**27.8**	**C**	**28.3**	**C**	**27.6**	**C**	**28.8**	***C***
5										
Apache Tr & Site Access B	Minor Street Stop Control	EB Left	-		-		9.7	A	10.7	B
		EB Right	-		-		9.0	A	9.0	A
		EB Approach	-		-		***9.2***	***A***	***9.4***	***A***
		NB Left	-		-		7.4	A	7.6	A

Table 7: Level-of-Service Summary – Horizon Year 2031

Intersection	Traffic Control	Movement/ Approach	2031 Background				2031 Background + Site Full Build-out			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
1										
Plaza Dr & Superstition Blvd	Minor Street Stop Control (NB/SB)	EB Left	7.9	A	7.9	A	7.9	A	7.9	A
		WB Left	8.0	A	8.2	A	8.1	A	8.3	A
		NB Left	14.4	B	16.2	C	15.5	C	17.8	C
		NB Thru/Right	10.4	B	11.5	B	10.8	B	11.8	B
		SB Left	13.7	B	14.7	B	13.8	B	14.9	B
		SB Thru/Right	11.7	B	10.6	B	12.1	B	11.3	B
2										
Plaza Dr & RV Resort Driveway/Site Access A	Minor Street Stop Control (EB/WB)	***EB Approach***	***9.2***	***A***	***8.9***	***A***	***9.4***	***A***	***9.3***	***A***
		WB Right	-		-		8.6	A	8.8	A
		NB Left	7.5	A	7.3	A	7.5	A	7.3	A
		SB Left	-		-		7.3	A	7.5	A
3										
Idaho Rd & Apache Tr	Traffic Signal	EB Left	9.2	A	32.8	C	8.3	A	33.1	C
		EB Thru	7.2	A	30.8	C	7.9	A	30.8	C
		EB Right	7.2	A	30.9	C	7.9	A	30.8	C
		EB Approach	***8.2***	***A***	***31.8***	***C***	***8.1***	***A***	***31.9***	***C***
		WB Left	9.6	A	34.6	C	8.4	A	34.6	C
		WB Thru/Right	8.0	A	30.6	C	7.9	A	30.7	C
		WB Right	8.0	A	30.6	C	7.9	A	30.7	C
		WB Approach	***9.0***	A	***33.1***	C	***8.2***	A	***33.0***	C
		NB Left	7.2	A	4.0	A	7.2	A	4.1	A
		NB Thru/Right	6.2	A	3.3	A	6.2	A	3.3	A
		NB Right	2.7	A	3.2	A	6.2	A	3.2	A
		NB Approach	***5.5***	***A***	***3.3***	***A***	***6.3***	***A***	***3.3***	***A***
		SB Left	7.0	A	3.6	A	6.6	A	3.6	A
		SB Thru/Right	5.9	A	3.6	A	6.7	A	3.7	A
		SB Right	5.9	A	3.7	A	6.8	A	3.7	A
		SB Approach	***5.9***	***A***	***3.6***	***A***	***6.8***	***A***	***3.7***	***A***
		INTERSECTION	**6.3**	**A**	**10.0**	**A**	**6.9**	**A**	**10.4**	***B***
4										
Apache Tr/Phelps Rd & Old West Hwy/Apache Tr	Traffic Signal	EB Left	38.6	D	42.6	D	39.5	D	43.2	D
		EB Thru	29.9	C	32.9	C	30.3	C	33.1	C
		EB Right	30.6	C	34.0	C	30.9	C	34.3	C
		EB Approach	***31.2***	***C***	***34.0***	***C***	***31.7***	***C***	***34.5***	***C***
		WB Left	47.7	D	56.5	E	48.7	D	53.8	D
		WB Right	32.5	C	29.9	C	33.1	C	30.8	C
		WB Right	33.6	C	30.3	C	34.3	C	31.4	C
		WB Approach	***33.5***	***C***	***33.0***	***C***	***34.2***	***C***	***33.8***	***C***
		NB Left	12.8	B	15.9	B	13.2	B	15.9	B
		NB Thru	14.4	B	18.6	B	15.2	B	18.9	B
		NB Right	14.5	B	18.8	B	15.2	B	19.1	B
		NB Approach	***13.9***	***B***	***17.8***	***B***	***14.5***	***B***	***18.1***	***B***
		SB Left	13.0	B	16.0	B	13.0	B	15.9	B
		SB Thru	14.8	B	18.8	B	15.0	B	18.9	B
		SB Right	14.8	B	19.0	B	15.0	B	19.1	B
		SB Approach	***14.4***	***B***	***18.2***	***B***	***14.4***	***B***	***18.1***	***B***
		INTERSECTION	**28.4**	**C**	**29.4**	**C**	**28.4**	**C**	**29.7**	***C***
5										
Apache Tr & Site Access B	Minor Street Stop Control	EB Left	-		-		10.0	A	11.2	B
		EB Right	-		-		9.1	A	9.2	A
		EB Approach	***-***		***-***		***9.3***	***A***	***9.6***	***A***
		NB Left	-		-		7.5	A	7.7	A

PRINCIPAL FINDINGS AND RECOMMENDATIONS

TRIP GENERATION

Full build-out of the proposed development is anticipated to generate 2,265 weekday daily trips (entering/exiting) with 134 trips (entering/exiting) during the AM peak hour and 171 trips (entering/exiting) during the PM peak hour.

When compared to a shopping center use allowed under B-3 zoning, the proposed multi-family development generates 5,211 fewer daily trips, 36 fewer AM peak hour trips, and 516 fewer PM peak hour trips.

LEVEL-OF-SERVICE

The study intersections operate at acceptable levels of service with existing conditions.

With trips from the proposed development, the study intersections will continue to operate at acceptable levels of service in both horizon years 2026 and 2031 with the existing lane configuration and traffic control.

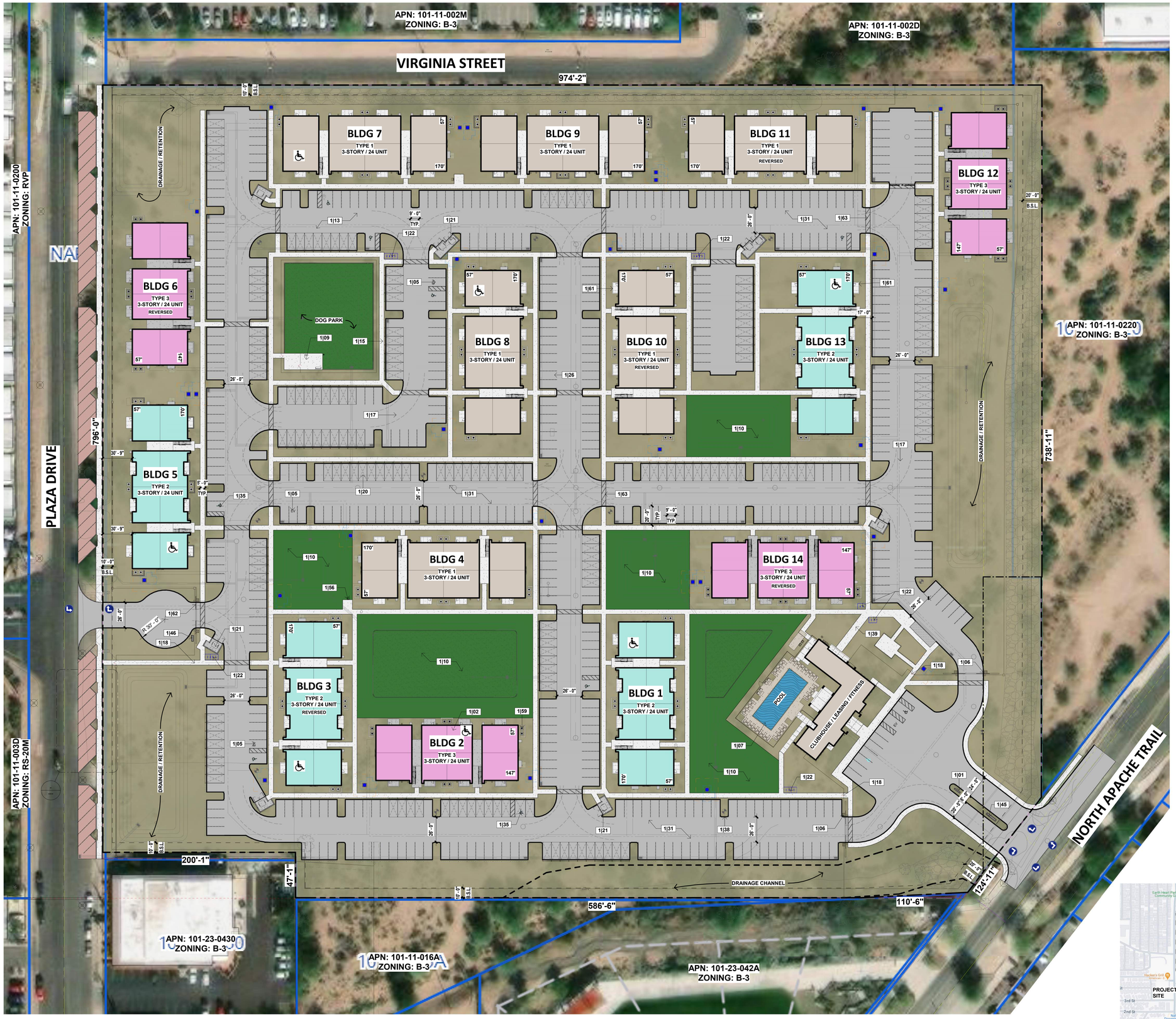
SITE ACCESS

A full access driveway is proposed on Apache Trail. A secondary driveway is proposed on Plaza Drive aligning with the existing RV Resort driveway and will be limited to a southbound left-in and westbound right-out only. The driveways will be controlled by a stop sign. Both Plaza Drive and Apache Trail are low volume roadways with a projected daily traffic volume less than 3,000 vpd on Plaza Drive and less than 4,600 vpd on Apache Trail. The posted speed limit on Apache Trail is 15 mph. A speed limit sign of 15 mph is provided on Plaza Drive for the existing Lost Dutchman RV Resort.

As part of the proposed development, half-street improvement will be provided on Apache Trail adjacent to the property. Half-street improvements will also be provided on Plaza Drive, which will include the provision of angled on-street parking in the northbound direction.

APPENDICES

APPENDIX A: Site Plan



SITE PLAN

1" = 40'-0"

DEVELOPMENT DATA

DEVELOPER:
WOLFF ENTERPRISES III, LLC
6710 E CAMELBACK ROAD #100
SCOTTSDALE, ARIZONA 85251
CONTACT: DEREK CAYTON

PHONE: (480) 236-0998
EMAIL: dcayton@awolff.com

SITE LOCATION:
APN:101-11-005A

ZONING:
EXISTING: B-3 IN CORE DOWNTOWN OVERLAY
PROPOSED: B-3 W/ C.U.P. IN CORE DOWNTOWN OVERLAY

NET LOT AREA:
+/- 809,770 SF (18.59 AC) T.B.V.
MINIMUM REQUIRED: 1,089 X 336 UNITS = 365,904 S.F.

USE:
MULTI-FAMILY RESIDENTIAL

AMENITIES:
SWIMMING POOL, BBQ, FITNESS CENTER

EXPLANATORY STATEMENT:
THREE STORY MULTI-FAMILY RESIDENTIAL COMMUNITY, SPRINKLERED NFPA 13 / 13R

COMMON OPEN SPACE:
187,725 S.F. = 23%

DENSITY:
PROVIDED: 18.07 DU / ACRE
MIN PER 1-5-3: 13 DU / ACRE
MAX PER TABLE 5-4: 40 DU / ACRE

BUILDING HEIGHT:
ALLOWED: 3 STORIES - 60' MAX PER TABLE 5-4
PROVIDED: 3-STORIES - 37'-5" MAX.

BUILDING SETBACKS:
20' FRONT / EAST
10' SIDES / REAR

BUILDING SEPARATION:
30'+ PROVIDED

CONSTRUCTION TYPE:
TYPE VB, SPRINKLERED NFPA 13 / 13R

BUILDING NUMBER	GROSS AREA
BLDG 1	28,924 SF
BLDG 2	24,779 SF
BLDG 3	28,924 SF
BLDG 4	28,591 SF
BLDG 5	28,924 SF
BLDG 6	24,779 SF
BLDG 7	28,591 SF
BLDG 8	28,591 SF
BLDG 9	28,591 SF
BLDG 10	28,591 SF
BLDG 11	28,591 SF
BLDG 12	24,779 SF
BLDG 13	28,924 SF
BLDG 14	24,779 SF
CLUBHOUSE	4,494 SF
Grand total: 44	390,852 SF

ARCHITECT:
STUDIO 15 ARCHITECTURE, INC.
4115 NORTH 15TH AVENUE
PHOENIX, ARIZONA 85015
CONTACT: REX BOYES
SHAN HARRIS

PHONE: (602) 586-1190
EMAIL: rex@studio15a.com
shan@studio15a.com

REQUIRED PARKING:
MULTIFAMILY
ONE BEDROOM 48X1.5 = 72 STALLS
TWO BEDROOM 288X2 = 576 STALLS
GUEST 1 SPACE PER 3 UNITS = 112 STALLS

TOTAL REQUIRED: 760 STALLS

2:22 PARKING RATIO REQUIRED

PARKING REQUIRED WITH 10% REDUCTION WITH ZONING ADMINISTRATOR REVIEW PER 1-7-4. 90% OF 760 = 684 STALLS

ONSITE PARKING PROVIDED

CARPORT	179 STALLS
CARPORT (ACCESSIBLE)	1 STALLS
EV CHARGING	4 STALLS
SURFACE	492 STALLS
SURFACE (ACCESSIBLE)	8 STALLS
TOTAL PARKING PROVIDED:	684 STALLS

OFFSITE PARKING: 45 STALLS

PARKING RATIO:
731 STALLS / 336 TOTAL D.U. = 2.17 (INCLUDES OFFSITE)
731 - 53 = 678 STALLS / 336 TOTAL D.U. = 2.01

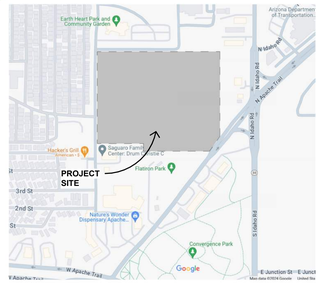
BIKE PARKING REQUIRED: 6+2 FOR EVERY 40 STALLS = 24

KEYNOTES

1|01	SITE DIRECTORY UNDER SEPARATE PERMIT - REFER TO SIGN PACKAGE / BUTTERFLYMX CALL BOX ON TUBE STEEL PEDESTAL WITH CONCRETE FOOTING
1|02	INDICATES 1ST FLOOR TYPE A UNIT - TYPICAL
1|05	INDICATES SINGLE EV CHARGING STATION - TYPICAL
1|06	26 FOOT WIDE VEHICULAR GATE W/ KNOX BOX FOR EMERGENCY FIRE ACCESS- UNDER SEPARATE PERMIT. AT MAIN ENTRANCE GATE TO BE PROVIDED WITH OPTICOM FOR FIRE DEPARTMENT ACCESS
1|07	POOL AREA - REFER TO LANDSCAPE PLANS
1|09	DOG PARK - REFER TO LANDSCAPE PLANS
1|10	OPEN SPACE
1|13	26' WIDE DRIVE AISLE TYPICAL U.N.O.
1|15	ALL SIDEWALKS ARE MINIMUM 5' WIDE TYPICAL U.N.O.
1|17	INDICATES FIRE TURNING RADIUS TYPICAL - INSIDE 40', OUTSIDE 56'
1|18	PEDESTRIAN GATE - REFER TO LANDSCAPE - TYPICAL
1|20	INDICATES COVERED PARKING UNDER SEPARATE PERMIT - TYPICAL
1|21	INDICATES REFUSE ENCLOSURE - TYPICAL
1|22	INDICATES BIKE RACK TYPICAL - REFER TO LANDSCAPE
1|26	PARKING STALL 9' WIDE X 18' LONG - TYPICAL U.N.O.
1|31	ASPHALT DRIVE - REFER TO CIVIL
1|35	INDICATES ACCESSIBLE PARKING STALL - TYPICAL
1|38	CONCRETE CURB - REFER TO CIVIL
1|39	CONCRETE CART DRIVE - REFER TO CIVIL
1|45	MONUMENT SIGN LOCATION
1|46	SITE DIRECTORY UNDER SEPARATE PERMIT - REFER TO SIGN PACKAGE
1|56	BBQ TO BE MINIMUM 10 FOOT CLEAR FROM ANY COMBUSTABLE STRUCTURE. TYPICAL ALL LOCATIONS, SEE LANDSCAPE PLAN FOR LOCATIONS.
1|59	GROUND MOUNTED MECHANICAL UNITS TO BE SCREENED WITH MASONRY SCREEN WALL
1|61	PRIVATE PATIO - SCREEN WALL AROUND PATIOS AT FRONT OF BUILDINGS.
1|62	26 FOOT WIDE VEHICULAR GATE W/ KNOX BOX FOR EMERGENCY FIRE ACCESS- GATE FOR RESIDENCE ENTRANCE AND EXIT ONLY, NO GUEST ENTRANCE - UNDER SEPARATE PERMIT
1|63	CONTRASTING COLOR PAINTED ASPHALT CROSS WALK, MATCH SIDEWALK WIDTH.

UNIT MIX

UNIT TYPE	# OF BEDROOMS	UNIT S.F.	# OF UNITS	TOTAL UNIT S.F.	PERCENTAGE
UNIT A1	1	750 SF	48	36,000 SF	14%
			48	36,000 SF	14%
UNIT B1	2	1,068 SF	240	256,320 SF	71%
UNIT B2	2	1,012 SF	48	48,576 SF	14%
			288	304,896 SF	86%
Grand total			336	340,896 SF	100%



VICINITY MAP

N

The Wolff Company

Apache Trail

Studio 15 Architecture & Planning

PRELIMINARY NOT FOR CONSTRUCTION

12/09/2024

DATE: December 09, 2024	JOB NO.: 24-022
CURRENT REVISION:	SHEET: A1.10

Site Plan

Studio 15 Architecture, Inc. info@studio15a.com
4115 North 15th Avenue • Phoenix Arizona 85015 • 602.586.1190

1/2/2025 4:12:42 PM

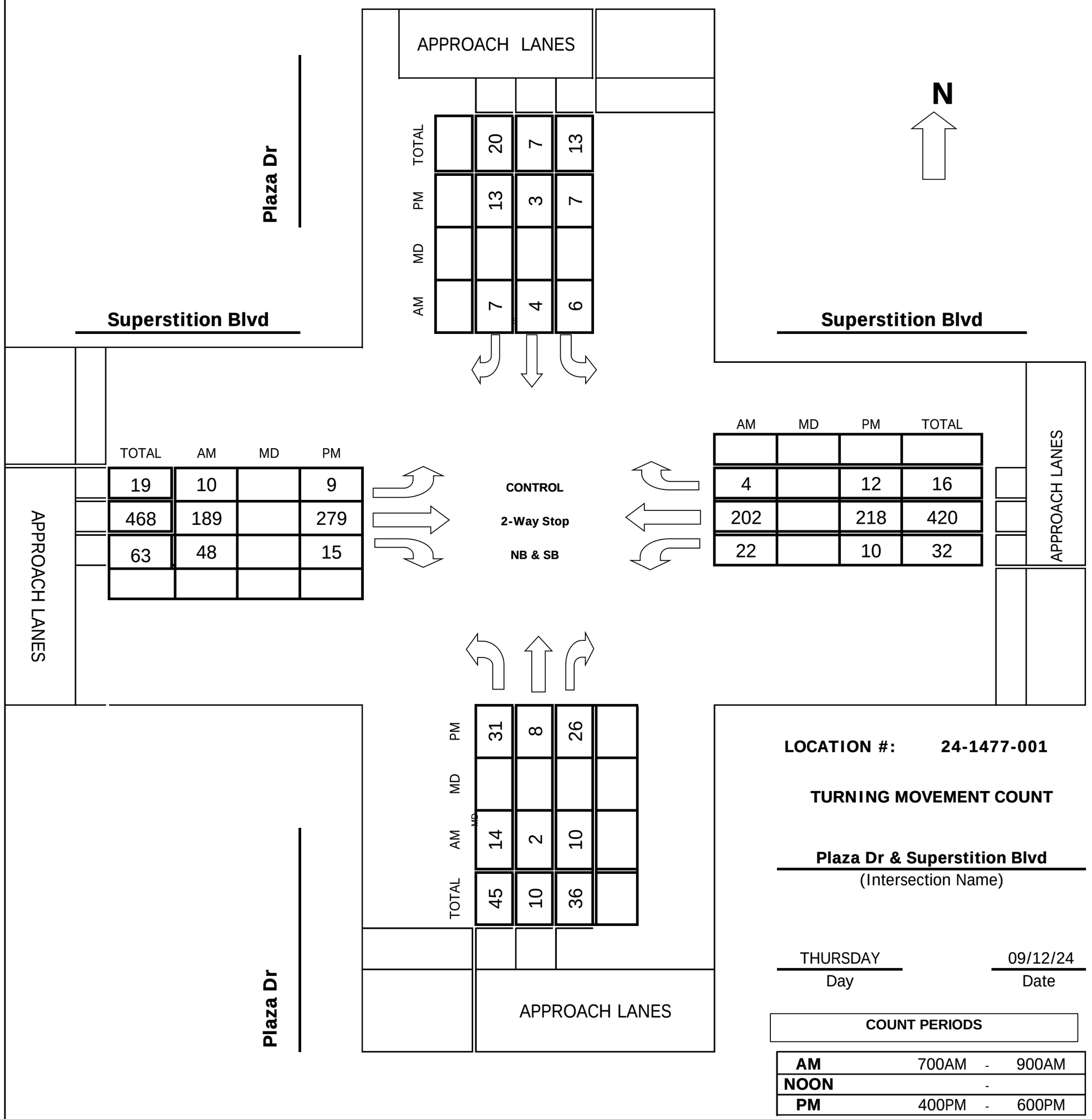
APPENDIX B: Existing Traffic Counts

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 24-1477-001

TMC SUMMARY OF Plaza Dr & Superstition Blvd



LOCATION #: 24-1477-001

TURNING MOVEMENT COUNT

Plaza Dr & Superstition Blvd
(Intersection Name)

THURSDAY — Day
09/12/24 — Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Plaza Dr | DATE: 09/12/24 | LOCATION: Apache Junction

E-W STREET: Superstition Blvd | DAY: THURSDAY | PROJECT# 24-1477-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0.5	0.5	1	0.5	0.5	0	2	0	0	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	4	0	0	0	0	3	1	49	9	1	31	0	98
7:15 AM	3	1	1	1	2	2	4	35	11	5	36	0	101
7:30 AM	4	1	4	1	0	3	2	52	15	7	42	2	133
7:45 AM	1	0	1	2	1	2	2	58	12	2	40	0	121
8:00 AM	3	0	4	2	1	1	2	47	11	7	66	0	144
8:15 AM	6	1	1	1	2	1	4	32	10	6	54	2	120
8:30 AM	2	0	1	2	1	1	1	57	5	4	41	1	116
8:45 AM	5	1	8	2	0	1	3	56	11	6	38	0	131
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	28	4	20	11	7	14	19	386	84	38	348	5	964
Approach %	53.85	7.69	38.46	34.38	21.88	43.75	3.89	78.94	17.18	9.72	89.00	1.28	
App/Depart	52	/	28	32	/	129	489	/	417	391	/	390	

AM Peak Hr Begins at: 730 AM

PEAK													
Volumes	14	2	10	6	4	7	10	189	48	22	202	4	518
Approach %	53.85	7.69	38.46	35.29	23.53	41.18	4.05	76.52	19.43	9.65	88.60	1.75	
PEAK HR. FACTOR:	0.722			0.850			0.858			0.781			0.899

CONTROL: 2-Way Stop (NB & SB)
COMMENT 1:
GPS: 33.422335, -111.550436

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Plaza Dr
0
E-W STREET: Superstition Blvd

DATE: 09/12/24
DAY: THURSDAY

LOCATION: Apache Junction
PROJECT# 24-1477-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0.5	0.5	1	0.5	0.5	0	2	0	0	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	6	1	3	3	0	4	4	68	10	4	68	1	172
4:15 PM	5	2	5	0	0	3	1	60	2	6	58	1	143
4:30 PM	6	3	4	4	0	5	1	73	5	3	66	2	172
4:45 PM	4	4	5	0	1	1	1	67	2	2	49	4	140
5:00 PM	15	1	9	2	1	2	3	72	4	2	59	4	174
5:15 PM	6	0	8	1	1	5	4	67	4	3	44	2	145
5:30 PM	6	2	4	2	0	2	1	56	4	0	52	0	129
5:45 PM	1	0	2	0	0	1	5	48	7	1	49	5	119
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	49	13	40	12	3	23	20	511	38	21	445	19	1194
Approach %	48.04	12.75	39.22	31.58	7.89	60.53	3.51	89.81	6.68	4.33	91.75	3.92	
App/Depart	102	/	52	38	/	62	569	/	563	485	/	517	

PM Peak Hr Begins at: 430 PM

PEAK													
Volumes	31	8	26	7	3	13	9	279	15	10	218	12	631
Approach %	47.69	12.31	40.00	30.43	13.04	56.52	2.97	92.08	4.95	4.17	90.83	5.00	
PEAK HR. FACTOR:		0.650			0.639			0.959			0.845		0.907

CONTROL: 2-Way Stop (NB & SB)
COMMENT 1: 0
GPS: 33.422335, -111.550436

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Plaza Dr
E-W STREET: Superstition Blvd

Date: 09/12/24
Day: THURSDAY

City: Apache Junction
Project #: 24-1477-001

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	1	0	0	0
TOTAL	**1**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	1	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	1	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	1	0	0
TOTAL	**2**	**1**	**0**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	1	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**1**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	1	0	1	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	1	0	0	0
TOTAL	**2**	**0**	**1**	**0**

North Leg

West Leg

East Leg

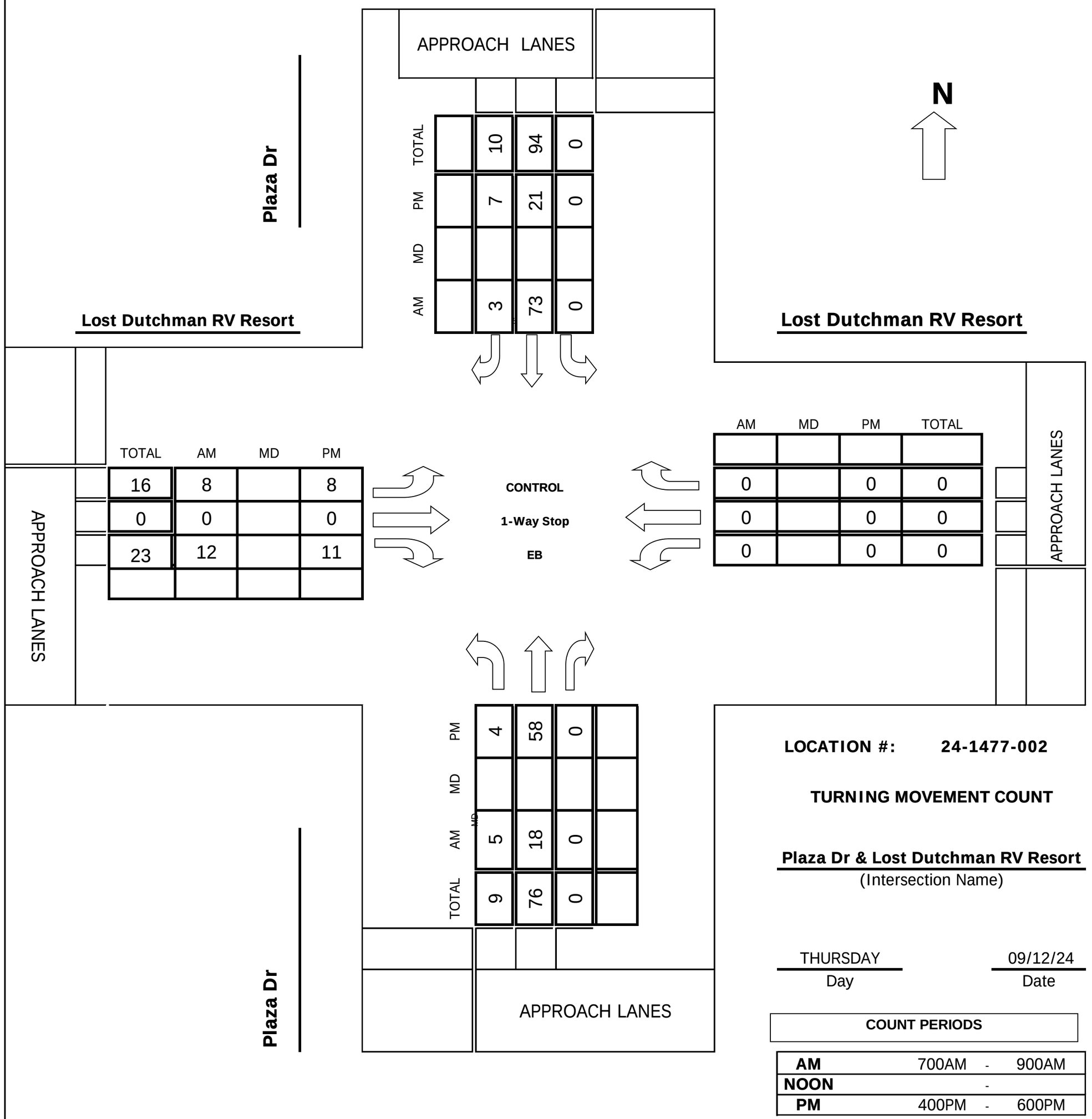
South Leg

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 24-1477-002

TMC SUMMARY OF Plaza Dr & Lost Dutchman RV Resort



LOCATION #: 24-1477-002

TURNING MOVEMENT COUNT

Plaza Dr & Lost Dutchman RV Resort
(Intersection Name)

THURSDAY — Day
09/12/24 — Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Plaza Dr DATE: 09/12/24 LOCATION: Apache Junction

E-W STREET: Lost Dutchman RV Resort DAY: THURSDAY PROJECT# 24-1477-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	1	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	2	0	0	8	1	1	0	3	0	0	0	16
7:15 AM	1	3	0	0	16	1	2	0	1	0	0	0	24
7:30 AM	2	4	0	0	22	0	4	0	3	0	0	0	35
7:45 AM	0	2	0	0	16	0	1	0	4	0	0	0	23
8:00 AM	3	5	0	0	18	1	2	0	3	0	0	0	32
8:15 AM	0	7	0	0	17	2	1	0	2	0	0	0	29
8:30 AM	1	3	0	0	10	1	1	0	1	0	0	0	17
8:45 AM	0	10	0	0	14	2	2	0	4	0	0	0	32
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	8	36	0	0	121	8	14	0	21	0	0	0	208
Approach %	18.18	81.82	0.00	0.00	93.80	6.20	40.00	0.00	60.00	####	####	####	
App/Depart	44	/	50	129	/	142	35	/	0	0	/	16	

AM Peak Hr Begins at: 730 AM

PEAK													
Volumes	5	18	0	0	73	3	8	0	12	0	0	0	119
Approach %	21.74	78.26	0.00	0.00	96.05	3.95	40.00	0.00	60.00	####	####	####	
PEAK HR. FACTOR:		0.719			0.864			0.714			0.000		0.850

CONTROL: 1-Way Stop (EB)
COMMENT 1:
GPS: 33.418663, -111.550538

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Plaza Dr
0
E-W STREET: Lost Dutchman RV Resort

DATE: 09/12/24
DAY: THURSDAY

LOCATION: Apache Junction
PROJECT# 24-1477-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	1	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3	10	0	0	10	1	1	0	1	0	0	0	26
4:15 PM	2	10	0	0	6	2	2	0	2	0	0	0	24
4:30 PM	1	9	0	0	8	1	3	0	5	0	0	0	27
4:45 PM	0	12	0	0	3	3	2	0	2	0	0	0	22
5:00 PM	1	23	0	0	5	2	2	0	3	0	0	0	36
5:15 PM	2	14	0	0	5	1	1	0	1	0	0	0	24
5:30 PM	1	9	0	0	3	1	4	0	4	0	0	0	22
5:45 PM	3	3	0	0	4	2	2	0	1	0	0	0	15
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	13	90	0	0	44	13	17	0	19	0	0	0	196
Approach %	12.62	87.38	0.00	0.00	77.19	22.81	47.22	0.00	52.78	####	####	####	
App/Depart	103	/	107	57	/	63	36	/	0	0	/	26	

PM Peak Hr Begins at: 430 PM

PEAK													
Volumes	4	58	0	0	21	7	8	0	11	0	0	0	109
Approach %	6.45	93.55	0.00	0.00	75.00	25.00	42.11	0.00	57.89	####	####	####	
PEAK HR. FACTOR:		0.646			0.778			0.594			0.000		0.757

CONTROL: 1-Way Stop (EB)
COMMENT 1: 0
GPS: 33.418663, -111.550538

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Plaza Dr
E-W STREET: Lost Dutchman RV Resort

Date: 09/12/24
Day: THURSDAY

City: Apache Junction
Project #: 24-1477-002

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	1	0	0	0
TOTAL	**1**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

North Leg

West Leg

East Leg

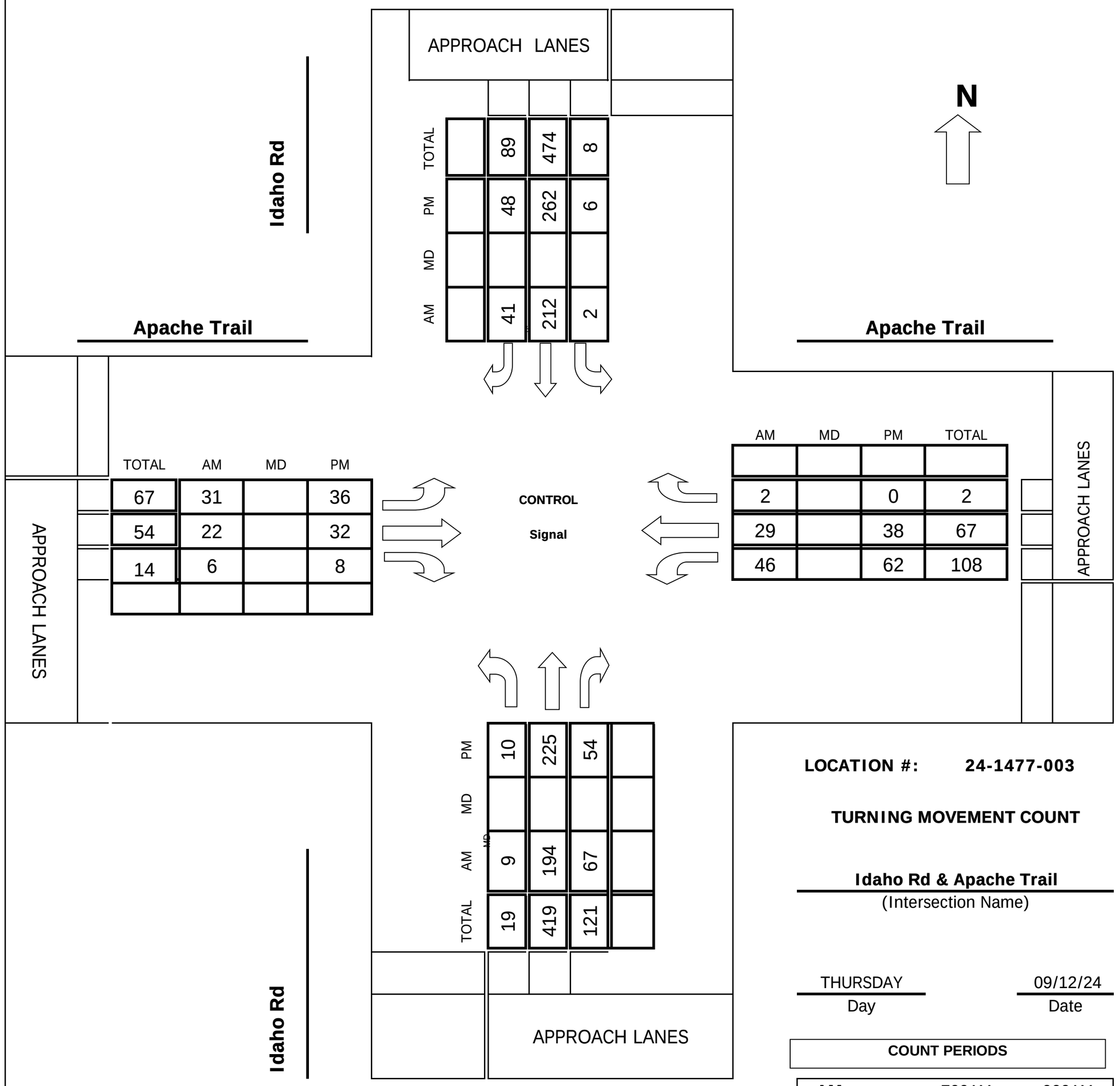
South Leg

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 24-1477-003

TMC SUMMARY OF Idaho Rd & Apache Trail



LOCATION #: 24-1477-003

TURNING MOVEMENT COUNT

Idaho Rd & Apache Trail
(Intersection Name)

THURSDAY — Day
09/12/24 — Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 800 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Idaho Rd | DATE: 09/12/24 | LOCATION: Apache Junction

E-W STREET: Apache Trail | DAY: THURSDAY | PROJECT# 24-1477-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1.5	1.5	1	2	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	41	16	1	24	5	2	2	0	16	3	1	112
7:15 AM	2	42	13	1	43	6	2	2	4	13	8	2	138
7:30 AM	4	46	19	0	30	9	4	3	2	9	6	1	133
7:45 AM	1	41	18	3	58	10	2	3	1	19	9	0	165
8:00 AM	1	48	16	0	42	11	9	2	2	11	5	1	148
8:15 AM	2	50	18	1	52	10	6	6	3	9	5	0	162
8:30 AM	2	51	22	1	61	5	6	5	1	15	9	1	179
8:45 AM	4	45	11	0	57	15	10	9	0	11	10	0	172
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	17	364	133	7	367	71	41	32	13	103	55	6	1209
Approach %	3.31	70.82	25.88	1.57	82.47	15.96	47.67	37.21	15.12	62.80	33.54	3.66	
App/Depart	514	/	411	445	/	483	86	/	172	164	/	143	

AM Peak Hr Begins at: 800 AM

PEAK													
Volumes	9	194	67	2	212	41	31	22	6	46	29	2	661
Approach %	3.33	71.85	24.81	0.78	83.14	16.08	52.54	37.29	10.17	59.74	37.66	2.60	
PEAK HR. FACTOR:		0.900			0.885			0.776			0.770		0.923

CONTROL: Signal
COMMENT 1:
GPS: 33.419040, -111.546090

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Idaho Rd
E-W STREET: Apache Trail
0
DATE: 09/12/24
DAY: THURSDAY
LOCATION: Apache Junction
PROJECT# 24-1477-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1.5	1.5	1	2	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	2	75	15	2	67	13	9	7	2	15	5	0	212
4:15 PM	3	46	10	2	70	13	7	9	2	12	4	0	178
4:30 PM	5	49	15	1	66	9	11	5	4	14	15	0	194
4:45 PM	2	56	16	2	68	12	7	10	2	12	10	0	197
5:00 PM	2	59	10	3	57	14	8	8	1	21	3	0	186
5:15 PM	1	61	13	0	71	13	10	9	1	15	10	0	204
5:30 PM	5	48	11	0	50	10	8	6	2	13	7	0	160
5:45 PM	0	48	12	1	45	12	11	11	1	9	3	0	153
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	20	442	102	11	494	96	71	65	15	111	57	0	1484
Approach %	3.55	78.37	18.09	1.83	82.20	15.97	47.02	43.05	9.93	66.07	33.93	0.00	
App/Depart	564	/	513	601	/	620	151	/	178	168	/	173	

PM Peak Hr Begins at: 430 PM

PEAK													
Volumes	10	225	54	6	262	48	36	32	8	62	38	0	781
Approach %	3.46	77.85	18.69	1.90	82.91	15.19	47.37	42.11	10.53	62.00	38.00	0.00	

PEAK HR. FACTOR:	0.963	0.940	0.950	0.862	0.957

CONTROL: Signal
COMMENT 1: 0
GPS: 33.419040, -111.546090

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Idaho Rd
E-W STREET: Apache Trail

Date: 09/12/24
Day: THURSDAY

City: Apache Junction
Project #: 24-1477-003

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	1
7:30 AM	0	0	0	0
7:45 AM	2	0	4	0
8:00 AM	0	0	0	0
8:15 AM	0	0	1	0
8:30 AM	0	0	0	0
8:45 AM	1	0	1	0
TOTAL	**3**	**0**	**6**	**1**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	1	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	1	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**2**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	2	0
4:30 PM	0	0	1	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	1
5:45 PM	0	0	0	1
TOTAL	**0**	**0**	**3**	**2**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	1	0
5:30 PM	1	0	0	0
5:45 PM	0	0	0	0
TOTAL	**1**	**0**	**1**	**0**

North Leg

West Leg

East Leg

South Leg

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 12, 2024 City: Apache Junction Project #: 24-1477-005

Location: Plaza Dr south of Superstition Blvd

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		0					12:00	12		15				
00:15	0		0					12:15	13		27				
00:30	0		0					12:30	20		19				
00:45	0	1	0	0			1	12:45	17	62	23	84			146
01:00	0		0					13:00	15		13				
01:15	0		0					13:15	11		15				
01:30	0		0					13:30	15		12				
01:45	0	0	0	0				13:45	13	54	22	62			116
02:00	0		1					14:00	10		18				
02:15	0		0					14:15	11		12				
02:30	0		1					14:30	21		14				
02:45	0	0	2	4			4	14:45	12	54	16	60			114
03:00	1		1					15:00	16		11				
03:15	0		0					15:15	17		14				
03:30	0		0					15:30	13		9				
03:45	0	1	0	1			2	15:45	20	66	9	43			109
04:00	0		0					16:00	10		14				
04:15	1		0					16:15	12		8				
04:30	2		2					16:30	13		8				
04:45	1	4	2	4			8	16:45	13	48	5	35			83
05:00	0		3					17:00	25		7				
05:15	1		1					17:15	14		8				
05:30	1		1					17:30	12		4				
05:45	0	2	7	12			14	17:45	3	54	8	27			81
06:00	3		7					18:00	13		5				
06:15	3		6					18:15	2		6				
06:30	0		9					18:30	6		3				
06:45	2	8	18	40			48	18:45	5	26	1	15			41
07:00	4		10					19:00	5		3				
07:15	5		18					19:15	6		2				
07:30	9		22					19:30	5		8				
07:45	2	20	15	65			85	19:45	6	22	5	18			40
08:00	7		19					20:00	3		1				
08:15	8		18					20:15	3		1				
08:30	3		10					20:30	3		0				
08:45	14	32	17	64			96	20:45	2	11	1	3			14
09:00	30		12					21:00	2		5				
09:15	33		12					21:15	0		2				
09:30	29		10					21:30	1		3				
09:45	10	102	10	44			146	21:45	0	3	0	10			13
10:00	11		13					22:00	1		1				
10:15	9		12					22:15	1		0				
10:30	12		22					22:30	1		0				
10:45	15	47	21	68			115	22:45	0	3	0	1			4
11:00	15		10					23:00	0		0				
11:15	19		23					23:15	0		0				
11:30	16		12					23:30	0		0				
11:45	15	65	24	69			134	23:45	1	1	0	0			1
Total Vol.		282		371			**653**			404		358			**762**

GPS Coordinates: 33.421540, -111.550436

Daily Totals

NB	SB	EB	WB	**Combined**
686	729			**1415**

	AM			PM		
Split %	43.2%	56.8%	**46.1%**	53.0%	47.0%	**53.9%**
Peak Hour	08:45	11:45	**08:45**	14:30	12:00	**12:15**
Volume	106	85	**157**	66	84	**147**
P.H.F.	0.80	0.79	**0.87**	0.79	0.78	**0.92**

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 12, 2024 City: Apache Junction Project #: 24-1477-006

Location: Idaho Rd north of Apache Trail

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	5		3					12:00	77		98				
00:15	3		3					12:15	80		87				
00:30	5		2					12:30	77		87				
00:45	7	20	0	8			28	12:45	93	327	90	362			689
01:00	2		3					13:00	102		91				
01:15	3		3					13:15	91		57				
01:30	3		2					13:30	77		90				
01:45	3	11	0	8			19	13:45	93	363	82	320			683
02:00	0		1					14:00	73		111				
02:15	1		4					14:15	83		88				
02:30	1		3					14:30	73		74				
02:45	1	3	2	10			13	14:45	72	301	73	346			647
03:00	2		6					15:00	80		84				
03:15	3		2					15:15	82		93				
03:30	4		7					15:30	70		91				
03:45	6	15	7	22			37	15:45	66	298	109	377			675
04:00	8		11					16:00	84		82				
04:15	9		6					16:15	53		85				
04:30	11		13					16:30	60		76				
04:45	15	43	17	47			90	16:45	63	260	82	325			585
05:00	15		18					17:00	67		74				
05:15	23		16					17:15	71		84				
05:30	19		21					17:30	56		60				
05:45	21	78	19	74			152	17:45	59	253	58	276			529
06:00	20		43					18:00	54		73				
06:15	38		34					18:15	41		52				
06:30	43		41					18:30	53		36				
06:45	53	154	36	154			308	18:45	40	188	46	207			395
07:00	44		30					19:00	45		43				
07:15	46		50					19:15	43		30				
07:30	51		39					19:30	41		44				
07:45	43	184	71	190			374	19:45	42	171	35	152			323
08:00	58		53					20:00	30		43				
08:15	56		63					20:15	32		43				
08:30	58		67					20:30	24		32				
08:45	55	227	72	255			482	20:45	24	110	20	138			248
09:00	75		70					21:00	17		30				
09:15	70		84					21:15	11		26				
09:30	58		102					21:30	16		12				
09:45	93	296	78	334			630	21:45	13	57	16	84			141
10:00	71		80					22:00	16		13				
10:15	76		79					22:15	9		9				
10:30	75		88					22:30	11		13				
10:45	75	297	84	331			628	22:45	10	46	6	41			87
11:00	81		69					23:00	12		8				
11:15	58		99					23:15	9		16				
11:30	89		108					23:30	4		6				
11:45	82	310	91	367			677	23:45	8	33	7	37			70
Total Vol.		1638		1800			**3438**			2407		2665			**5072**

GPS Coordinates: 33.419939, -111.546105

Daily Totals

NB	SB	EB	WB	**Combined**
4045	4465			**8510**

	AM			PM		
Split %	47.6%	52.4%	**40.4%**	47.5%	52.5%	**59.6%**
Peak Hour	11:30	11:15	**11:30**	12:30	15:00	**12:15**
Volume	328	396	**712**	363	377	**707**
P.H.F.	0.92	0.92	**0.90**	0.89	0.86	**0.92**

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 12, 2024 City: Apache Junction Project #: 24-1477-007

Location: Apache Trail south west of Idaho Rd

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		2			12:00			25		37		
00:15			2		1			12:15			14		28		
00:30			0		0			12:30			27		36		
00:45			1	4	0	3	7	12:45			30	96	26	127	223
01:00			0		3			13:00			32		23		
01:15			0		0			13:15			27		17		
01:30			1		1			13:30			24		27		
01:45			0	1	0	4	5	13:45			22	105	30	97	202
02:00			0		4			14:00			21		34		
02:15			0		1			14:15			19		21		
02:30			0		0			14:30			25		22		
02:45			0	0	0	5	5	14:45			31	96	20	97	193
03:00			0		1			15:00			15		20		
03:15			0		0			15:15			20		12		
03:30			1		0			15:30			19		29		
03:45			1	2	0	1	3	15:45			20	74	32	93	167
04:00			1		0			16:00			18		20		
04:15			0		0			16:15			18		20		
04:30			1		3			16:30			20		29		
04:45			3	5	5	8	13	16:45			19	75	24	93	168
05:00			2		1			17:00			17		19		
05:15			2		1			17:15			20		24		
05:30			1		0			17:30			16		22		
05:45			5	10	6	8	18	17:45			23	76	15	80	156
06:00			3		9			18:00			16		12		
06:15			4		10			18:15			17		16		
06:30			8		6			18:30			19		20		
06:45			7	22	11	36	58	18:45			21	73	20	68	141
07:00			4		9			19:00			17		17		
07:15			8		16			19:15			15		10		
07:30			9		19			19:30			13		14		
07:45			6	27	20	64	91	19:45			16	61	11	52	113
08:00			13		17			20:00			10		9		
08:15			15		17			20:15			9		11		
08:30			12		16			20:30			9		9		
08:45			19	59	29	79	138	20:45			8	36	6	35	71
09:00			16		23			21:00			4		5		
09:15			8		30			21:15			7		4		
09:30			21		35			21:30			5		1		
09:45			22	67	33	121	188	21:45			3	19	4	14	33
10:00			22		30			22:00			4		4		
10:15			23		27			22:15			4		1		
10:30			19		37			22:30			4		6		
10:45			20	84	35	129	213	22:45			0	12	1	12	24
11:00			23		21			23:00			3		0		
11:15			18		44			23:15			2		2		
11:30			19		31			23:30			0		1		
11:45			24	84	26	122	206	23:45			1	6	2	5	11
Total Vol.				365		580	**945**					729		773	**1502**

GPS Coordinates: 33.418036, -111.547100

Daily Totals

NB	SB	EB	WB	Combined
		1094	1353	**2447**

	AM			PM		
Split %	38.6%	61.4%	**38.6%**	48.5%	51.5%	**61.4%**
Peak Hour	11:45	11:15	**11:15**	12:30	12:00	**12:00**
Volume	90	138	**224**	116	127	**223**
P.H.F.	0.83	0.78	**0.90**	0.91	0.86	**0.88**

APPENDIX C: Existing Level-of-Service Analysis

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	189	48	22	202	4	14	2	10	6	4	7
Future Vol, veh/h	10	189	48	22	202	4	14	2	10	6	4	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	205	52	24	220	4	15	2	11	7	4	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	224	0	0	257	0	0	413	525	129	396	549	112
Stage 1	-	-	-	-	-	-	253	253	-	270	270	-
Stage 2	-	-	-	-	-	-	160	272	-	126	279	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1342	-	-	1305	-	-	523	456	897	538	442	920
Stage 1	-	-	-	-	-	-	729	696	-	713	685	-
Stage 2	-	-	-	-	-	-	826	683	-	865	678	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1342	-	-	1305	-	-	504	444	897	519	431	920
Mov Cap-2 Maneuver	-	-	-	-	-	-	504	444	-	519	431	-
Stage 1	-	-	-	-	-	-	723	690	-	707	673	-
Stage 2	-	-	-	-	-	-	799	671	-	845	673	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.8	11.2	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	504	767	1342	-	-	1305	-	-	519	651
HCM Lane V/C Ratio	0.03	0.017	0.008	-	-	0.018	-	-	0.013	0.018
HCM Control Delay (s)	12.4	9.8	7.7	-	-	7.8	-	-	12	10.6
HCM Lane LOS	B	A	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0.1	0	-	-	0.1	-	-	0	0.1

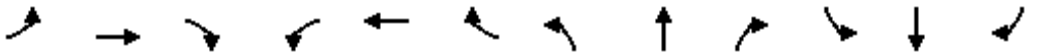
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	12	5	18	73	3
Future Vol, veh/h	8	12	5	18	73	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	13	5	20	79	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	111	81	82	0	-	0
Stage 1	81	-	-	-	-	-
Stage 2	30	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	886	979	1515	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	993	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	883	979	1515	-	-	-
Mov Cap-2 Maneuver	883	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	993	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	1.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1515	-	938	-	-
HCM Lane V/C Ratio	0.004	-	0.023	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

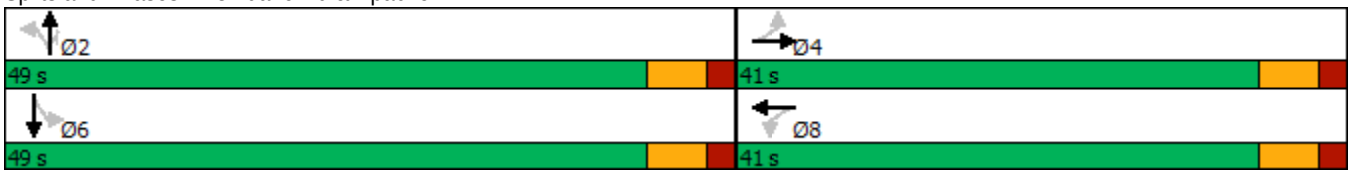


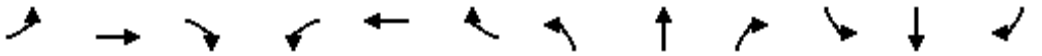
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	22	6	46	29	2	9	194	67	2	212	41
Future Volume (vph)	31	22	6	46	29	2	9	194	67	2	212	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.966			0.991			0.995	0.850		0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3419	0	1770	3507	0	1770	3373	1441	1770	3451	0
Flt Permitted							0.583			0.610		
Satd. Flow (perm)	1863	3419	0	1863	3507	0	1086	3373	1441	1136	3451	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			2			5	66		34	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		153			171			2128			1221	
Travel Time (s)		3.0			3.3			32.2			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	24	7	50	32	2	10	211	73	2	230	45
Shared Lane Traffic (%)									10%			
Lane Group Flow (vph)	34	31	0	50	34	0	10	218	66	2	275	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0	24.0	24.0	24.0	
Total Split (s)	41.0	41.0		41.0	41.0		49.0	49.0	49.0	49.0	49.0	
Total Split (%)	45.6%	45.6%		45.6%	45.6%		54.4%	54.4%	54.4%	54.4%	54.4%	
Maximum Green (s)	35.0	35.0		35.0	35.0		43.0	43.0	43.0	43.0	43.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)	6.4	6.4		6.5	6.5		19.0	19.0	19.0	19.0	19.0	
Actuated g/C Ratio	0.24	0.24		0.25	0.25		0.72	0.72	0.72	0.72	0.72	
v/c Ratio	0.08	0.04		0.11	0.04		0.01	0.09	0.06	0.00	0.11	
Control Delay	7.9	6.6		8.1	7.2		6.2	4.8	2.9	6.5	4.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	7.9	6.6		8.1	7.2		6.2	4.8	2.9	6.5	4.4	
LOS	A	A		A	A		A	A	A	A	A	
Approach Delay		7.3			7.7			4.4			4.4	
Approach LOS		A			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 26.4			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.11			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 27.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Idaho Rd & Apache Tr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	269	30	14	313	21	38	33	17	21	20	51
Future Volume (veh/h)	41	269	30	14	313	21	38	33	17	21	20	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	292	33	15	340	23	32	49	18	23	47	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	686	76	32	608	41	700	1162	404	710	806	683
Arrive On Green	0.04	0.15	0.15	0.02	0.12	0.12	0.03	0.44	0.44	0.03	0.43	0.43
Sat Flow, veh/h	3456	4666	516	1781	4889	327	1781	2653	922	1781	1870	1585
Grp Volume(v), veh/h	45	211	114	15	235	128	32	34	33	23	47	38
Grp Sat Flow(s),veh/h/ln	1728	1702	1778	1781	1702	1812	1781	1870	1704	1781	1870	1585
Q Serve(g_s), s	1.0	4.3	4.4	0.6	4.9	5.0	0.7	0.8	0.8	0.5	1.1	1.1
Cycle Q Clear(g_c), s	1.0	4.3	4.4	0.6	4.9	5.0	0.7	0.8	0.8	0.5	1.1	1.1
Prop In Lane	1.00		0.29	1.00		0.18	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	140	501	261	32	424	225	700	819	747	710	806	683
V/C Ratio(X)	0.32	0.42	0.44	0.47	0.56	0.57	0.05	0.04	0.04	0.03	0.06	0.06
Avail Cap(c_a), veh/h	550	1672	873	260	1627	866	855	819	747	925	869	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	29.2	29.3	36.6	31.0	31.1	11.1	12.1	12.1	11.3	12.5	12.5
Incr Delay (d2), s/veh	1.3	0.6	1.1	10.4	1.1	2.2	0.0	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.7	1.9	0.4	2.0	2.3	0.3	0.3	0.3	0.2	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	29.8	30.4	47.1	32.2	33.3	11.1	12.2	12.2	11.3	12.5	12.5
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		370			378			99			108	
Approach Delay, s/veh		30.8			33.1			11.9			12.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	40.0	8.3	18.1	9.4	39.5	10.1	16.4
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	11.0	33.0	11.0	37.0	9.0	35.0	12.0	36.0
Max Q Clear Time (g_c+I1), s	2.5	2.8	2.6	6.4	2.7	3.1	3.0	7.0
Green Ext Time (p_c), s	0.0	0.3	0.0	2.1	0.0	0.3	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	279	15	10	218	12	31	8	26	7	3	13
Future Vol, veh/h	9	279	15	10	218	12	31	8	26	7	3	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	303	16	11	237	13	34	9	28	8	3	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	250	0	0	319	0	0	473	603	160	442	605	125
Stage 1	-	-	-	-	-	-	331	331	-	266	266	-
Stage 2	-	-	-	-	-	-	142	272	-	176	339	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1313	-	-	1238	-	-	474	412	857	499	410	902
Stage 1	-	-	-	-	-	-	656	644	-	716	687	-
Stage 2	-	-	-	-	-	-	846	683	-	809	638	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1313	-	-	1238	-	-	458	405	857	469	403	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	458	405	-	469	403	-
Stage 1	-	-	-	-	-	-	651	639	-	710	681	-
Stage 2	-	-	-	-	-	-	821	677	-	766	633	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.3	12	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	458	679	1313	-	-	1238	-	-	469	732
HCM Lane V/C Ratio	0.074	0.054	0.007	-	-	0.009	-	-	0.016	0.024
HCM Control Delay (s)	13.5	10.6	7.8	-	-	7.9	-	-	12.8	10
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.2	0.2	0	-	-	0	-	-	0	0.1

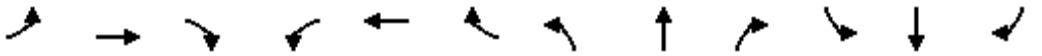
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	11	4	58	21	7
Future Vol, veh/h	8	11	4	58	21	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	12	4	63	23	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	98	27	31	0	-	0
Stage 1	27	-	-	-	-	-
Stage 2	71	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	901	1048	1582	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	952	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	898	1048	1582	-	-	-
Mov Cap-2 Maneuver	898	-	-	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	952	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1582	-	979	-	-
HCM Lane V/C Ratio	0.003	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



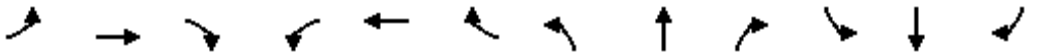
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	32	8	62	38	0	10	225	54	6	262	48
Future Volume (veh/h)	36	32	8	62	38	0	10	225	54	6	262	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	35	9	67	41	0	11	245	59	7	285	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	255	63	203	321	0	850	2803	1188	927	2254	406
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.00	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1366	2823	698	1362	3647	0	1043	3741	1585	1135	3008	542
Grp Volume(v), veh/h	39	22	22	67	41	0	11	245	59	7	167	170
Grp Sat Flow(s),veh/h/ln	1366	1777	1745	1362	1777	0	1043	1870	1585	1135	1777	1773
Q Serve(g_s), s	2.0	0.8	0.9	3.6	0.8	0.0	0.2	1.3	0.7	0.1	1.9	2.0
Cycle Q Clear(g_c), s	2.8	0.8	0.9	4.5	0.8	0.0	2.2	1.3	0.7	1.4	1.9	2.0
Prop In Lane	1.00		0.40	1.00		0.00	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	205	160	157	203	321	0	850	2803	1188	927	1331	1328
V/C Ratio(X)	0.19	0.13	0.14	0.33	0.13	0.00	0.01	0.09	0.05	0.01	0.13	0.13
Avail Cap(c_a), veh/h	849	998	980	846	1997	0	850	2803	1188	927	1331	1328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	31.3	31.3	33.4	31.3	0.0	2.9	2.5	2.4	2.7	2.6	2.6
Incr Delay (d2), s/veh	0.4	0.4	0.4	0.9	0.2	0.0	0.0	0.1	0.1	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	0.4	1.2	0.3	0.0	0.0	0.3	0.2	0.0	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	31.7	31.7	34.3	31.5	0.0	2.9	2.6	2.5	2.7	2.8	2.8
LnGrp LOS	C	C	C	C	C	A	A	A	A	A	A	A
Approach Vol, veh/h		83			108			315			344	
Approach Delay, s/veh		32.3			33.2			2.6			2.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.0		12.7		62.0		12.7				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		56.0		42.0		56.0		42.0				
Max Q Clear Time (g_c+I1), s		4.2		4.8		4.0		6.5				
Green Ext Time (p_c), s		2.0		0.3		2.2		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			9.5									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	426	59	46	295	29	94	42	48	35	41	55
Future Volume (veh/h)	40	426	59	46	295	29	94	42	48	35	41	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	463	64	50	321	32	67	95	52	38	56	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	751	102	74	798	78	685	956	489	628	743	630
Arrive On Green	0.04	0.17	0.17	0.04	0.17	0.17	0.05	0.41	0.41	0.04	0.40	0.40
Sat Flow, veh/h	3456	4546	617	1781	4728	463	1781	2333	1193	1781	1870	1585
Grp Volume(v), veh/h	43	345	182	50	229	124	67	75	72	38	56	52
Grp Sat Flow(s),veh/h/ln	1728	1702	1759	1781	1702	1787	1781	1870	1656	1781	1870	1585
Q Serve(g_s), s	1.0	7.6	7.8	2.2	4.8	5.0	1.7	2.0	2.2	1.0	1.5	1.6
Cycle Q Clear(g_c), s	1.0	7.6	7.8	2.2	4.8	5.0	1.7	2.0	2.2	1.0	1.5	1.6
Prop In Lane	1.00		0.35	1.00		0.26	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	133	563	291	74	574	301	685	767	679	628	743	630
V/C Ratio(X)	0.32	0.61	0.63	0.67	0.40	0.41	0.10	0.10	0.11	0.06	0.08	0.08
Avail Cap(c_a), veh/h	472	1479	764	332	1648	865	821	767	679	764	743	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	31.2	31.3	38.1	29.8	29.9	12.9	14.6	14.7	13.3	15.1	15.1
Incr Delay (d2), s/veh	1.4	1.1	2.2	10.0	0.4	0.9	0.1	0.3	0.3	0.0	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.1	3.4	1.2	2.0	2.2	0.7	0.9	0.8	0.4	0.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	32.3	33.5	48.1	30.3	30.8	13.0	14.9	15.0	13.3	15.3	15.4
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		570			403			214			146	
Approach Delay, s/veh		33.2			32.7			14.3			14.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	40.0	10.4	20.3	10.9	39.0	10.1	20.6
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	9.0	33.0	15.0	35.0	10.0	32.0	11.0	39.0
Max Q Clear Time (g_c+I1), s	3.0	4.2	4.2	9.8	3.7	3.6	3.0	7.0
Green Ext Time (p_c), s	0.0	0.8	0.1	3.5	0.1	0.4	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX D: Trip Generation Calculation

Apache Trail (24-0336)
October 11, 2024

DESCRIPTION OF LAND USE				VEHICLE GENERATED TRIPS									Data Points	AVERAGE RATE or EQUATION			DIRECTIONAL DISTRIBUTION					
				Daily			AM Peak Hour			PM Peak Hour							Daily		AM Peak Hour		PM Peak Hour	
Phase/Parcel	Land Use	ITE Land Use Code (LUC)	SIZE	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total		Daily	AM Peak Hour	PM Peak Hour	Enter	Exit	Enter	Exit	Enter	Exit
	Multi-family Residential	220 Multifamily Housing	336 DU	1,133	1,132	2,265	32	102	134	108	63	171		6.74	0.4	0.51	50%	50%	24%	76%	63%	37%
			Total Trips	1,133	1,132	2,265	32	102	134	108	63	171										
			Alternate Mode Reduction *0%*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*										
			Internal Trips (Retail/Restaurant) *20%*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*										
			"New" Trips Added to Street System	1,133	1,132	2,265	32	102	134	108	63	171										

Source: ITE Trip Generation Manual 11th Edition

APPENDIX E: Future 2026 Level-of-Service Analysis

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	185	53	24	200	4	15	2	11	7	4	8
Future Vol, veh/h	11	185	53	24	200	4	15	2	11	7	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	201	58	26	217	4	16	2	12	8	4	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	221	0	0	259	0	0	417	527	130	397	554	111
Stage 1	-	-	-	-	-	-	254	254	-	271	271	-
Stage 2	-	-	-	-	-	-	163	273	-	126	283	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1345	-	-	1303	-	-	520	455	896	537	439	921
Stage 1	-	-	-	-	-	-	728	696	-	712	684	-
Stage 2	-	-	-	-	-	-	823	683	-	865	676	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1345	-	-	1303	-	-	500	442	896	516	426	921
Mov Cap-2 Maneuver	-	-	-	-	-	-	500	442	-	516	426	-
Stage 1	-	-	-	-	-	-	721	690	-	706	670	-
Stage 2	-	-	-	-	-	-	794	669	-	843	670	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.8	11.1	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	500	774	1345	-	-	1303	-	-	516	664
HCM Lane V/C Ratio	0.033	0.018	0.009	-	-	0.02	-	-	0.015	0.02
HCM Control Delay (s)	12.4	9.7	7.7	-	-	7.8	-	-	12.1	10.5
HCM Lane LOS	B	A	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0.1	0	-	-	0.1	-	-	0	0.1

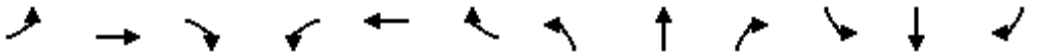
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	13	6	20	80	3
Future Vol, veh/h	9	13	6	20	80	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	14	7	22	87	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	125	89	90	0	-	0
Stage 1	89	-	-	-	-	-
Stage 2	36	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	870	969	1505	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	986	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	866	969	1505	-	-	-
Mov Cap-2 Maneuver	866	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	986	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1505	-	924	-	-
HCM Lane V/C Ratio	0.004	-	0.026	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

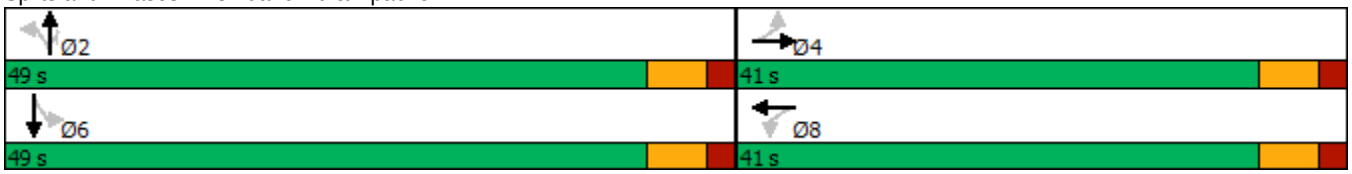


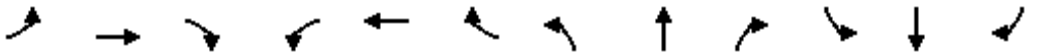
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	24	7	51	32	2	10	214	74	2	234	45
Future Volume (vph)	34	24	7	51	32	2	10	214	74	2	234	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.965			0.992			0.995	0.850		0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3415	0	1770	3511	0	1770	3373	1441	1770	3454	0
Flt Permitted							0.567			0.596		
Satd. Flow (perm)	1863	3415	0	1863	3511	0	1056	3373	1441	1110	3454	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			2			5	72		34	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		153			171			2128			1221	
Travel Time (s)		3.0			3.3			32.2			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	26	8	55	35	2	11	233	80	2	254	49
Shared Lane Traffic (%)									10%			
Lane Group Flow (vph)	37	34	0	55	37	0	11	241	72	2	303	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0	24.0	24.0	24.0	
Total Split (s)	41.0	41.0		41.0	41.0		49.0	49.0	49.0	49.0	49.0	
Total Split (%)	45.6%	45.6%		45.6%	45.6%		54.4%	54.4%	54.4%	54.4%	54.4%	
Maximum Green (s)	35.0	35.0		35.0	35.0		43.0	43.0	43.0	43.0	43.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)	6.5	6.5		6.7	6.7		19.2	19.2	19.2	19.2	19.2	
Actuated g/C Ratio	0.24	0.24		0.25	0.25		0.72	0.72	0.72	0.72	0.72	
v/c Ratio	0.08	0.04		0.12	0.04		0.01	0.10	0.07	0.00	0.12	
Control Delay	7.9	6.5		8.2	7.2		6.3	4.8	2.8	6.5	4.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	7.9	6.5		8.2	7.2		6.3	4.8	2.8	6.5	4.4	
LOS	A	A		A	A		A	A	A	A	A	
Approach Delay		7.2			7.8			4.4			4.4	
Approach LOS		A			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 26.6			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.12			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 27.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Idaho Rd & Apache Tr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	297	33	15	345	23	42	36	19	23	22	56
Future Volume (veh/h)	45	297	33	15	345	23	42	36	19	23	22	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	323	36	16	375	25	35	54	21	25	52	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	733	80	34	653	43	686	1126	413	697	793	672
Arrive On Green	0.04	0.16	0.16	0.02	0.13	0.13	0.03	0.43	0.43	0.03	0.42	0.42
Sat Flow, veh/h	3456	4672	510	1781	4894	323	1781	2610	958	1781	1870	1585
Grp Volume(v), veh/h	49	233	126	16	260	140	35	38	37	25	52	42
Grp Sat Flow(s),veh/h/ln	1728	1702	1779	1781	1702	1812	1781	1870	1698	1781	1870	1585
Q Serve(g_s), s	1.1	4.8	4.9	0.7	5.5	5.6	0.8	0.9	1.0	0.6	1.3	1.2
Cycle Q Clear(g_c), s	1.1	4.8	4.9	0.7	5.5	5.6	0.8	0.9	1.0	0.6	1.3	1.2
Prop In Lane	1.00		0.29	1.00		0.18	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	146	534	279	34	454	242	686	807	732	697	793	672
V/C Ratio(X)	0.34	0.44	0.45	0.48	0.57	0.58	0.05	0.05	0.05	0.04	0.07	0.06
Avail Cap(c_a), veh/h	542	1646	860	256	1602	853	834	807	732	905	856	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	29.2	29.3	37.2	31.1	31.1	11.5	12.6	12.6	11.7	13.1	13.0
Incr Delay (d2), s/veh	1.3	0.6	1.1	10.1	1.1	2.2	0.0	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.9	2.1	0.4	2.3	2.5	0.3	0.4	0.4	0.2	0.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	29.8	30.4	47.3	32.2	33.3	11.5	12.7	12.8	11.7	13.1	13.1
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		408			416			110			119	
Approach Delay, s/veh		30.8			33.2			12.4			12.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	40.0	8.4	19.0	9.6	39.4	10.2	17.2
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	11.0	33.0	11.0	37.0	9.0	35.0	12.0	36.0
Max Q Clear Time (g_c+I1), s	2.6	3.0	2.7	6.9	2.8	3.3	3.1	7.6
Green Ext Time (p_c), s	0.0	0.4	0.0	2.4	0.0	0.4	0.1	2.6

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	276	17	11	201	13	34	9	29	8	3	14
Future Vol, veh/h	10	276	17	11	201	13	34	9	29	8	3	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	300	18	12	218	14	37	10	32	9	3	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	318	0	0	466	587	159	426	589	116
Stage 1	-	-	-	-	-	-	331	331	-	249	249	-
Stage 2	-	-	-	-	-	-	135	256	-	177	340	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1333	-	-	1239	-	-	480	420	858	512	419	914
Stage 1	-	-	-	-	-	-	656	644	-	733	699	-
Stage 2	-	-	-	-	-	-	854	694	-	808	638	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1333	-	-	1239	-	-	463	412	858	478	411	914
Mov Cap-2 Maneuver	-	-	-	-	-	-	463	412	-	478	411	-
Stage 1	-	-	-	-	-	-	651	639	-	727	692	-
Stage 2	-	-	-	-	-	-	828	687	-	760	633	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.4	11.9	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	463	683	1333	-	-	1239	-	-	478	752
HCM Lane V/C Ratio	0.08	0.06	0.008	-	-	0.01	-	-	0.018	0.025
HCM Control Delay (s)	13.4	10.6	7.7	-	-	7.9	-	-	12.7	9.9
HCM Lane LOS	B	B	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.3	0.2	0	-	-	0	-	-	0.1	0.1

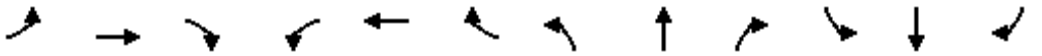
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	12	4	64	23	8
Future Vol, veh/h	9	12	4	64	23	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	13	4	70	25	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	108	30	34	0	-	0
Stage 1	30	-	-	-	-	-
Stage 2	78	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	889	1044	1578	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	886	1044	1578	-	-	-
Mov Cap-2 Maneuver	886	-	-	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1578	-	970	-	-
HCM Lane V/C Ratio	0.003	-	0.024	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



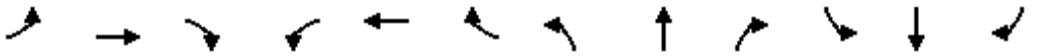
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	35	9	68	42	0	11	248	60	7	289	53
Future Volume (veh/h)	40	35	9	68	42	0	11	248	60	7	289	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	38	10	74	46	0	12	270	65	8	314	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	273	69	210	346	0	816	2781	1178	898	2231	407
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.00	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	1360	2809	710	1357	3647	0	1010	3741	1585	1109	3001	548
Grp Volume(v), veh/h	43	23	25	74	46	0	12	270	65	8	184	188
Grp Sat Flow(s),veh/h/ln	1360	1777	1743	1357	1777	0	1010	1870	1585	1109	1777	1772
Q Serve(g_s), s	2.2	0.9	1.0	4.0	0.9	0.0	0.3	1.5	0.8	0.2	2.2	2.3
Cycle Q Clear(g_c), s	3.1	0.9	1.0	4.9	0.9	0.0	2.5	1.5	0.8	1.7	2.2	2.3
Prop In Lane	1.00		0.41	1.00		0.00	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	212	173	170	210	346	0	816	2781	1178	898	1321	1317
V/C Ratio(X)	0.20	0.14	0.14	0.35	0.13	0.00	0.01	0.10	0.06	0.01	0.14	0.14
Avail Cap(c_a), veh/h	838	991	971	835	1981	0	816	2781	1178	898	1321	1317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	31.1	31.1	33.4	31.1	0.0	3.1	2.7	2.6	2.9	2.8	2.8
Incr Delay (d2), s/veh	0.5	0.4	0.4	1.0	0.2	0.0	0.0	0.1	0.1	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	0.4	1.3	0.4	0.0	0.0	0.4	0.2	0.0	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	31.5	31.5	34.4	31.3	0.0	3.2	2.7	2.7	2.9	3.0	3.0
LnGrp LOS	C	C	C	C	C	A	A	A	A	A	A	A
Approach Vol, veh/h		91			120			347			380	
Approach Delay, s/veh		32.2			33.2			2.7			3.0	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.0		13.3		62.0		13.3				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		56.0		42.0		56.0		42.0				
Max Q Clear Time (g_c+I1), s		4.5		5.1		4.3		6.9				
Green Ext Time (p_c), s		2.2		0.4		2.5		0.5				

Intersection Summary		
HCM 6th Ctrl Delay		9.6
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	470	65	51	325	32	104	46	53	39	45	61
Future Volume (veh/h)	44	470	65	51	325	32	104	46	53	39	45	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	511	71	55	353	35	74	105	58	42	62	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	808	111	77	856	83	669	932	481	607	727	616
Arrive On Green	0.04	0.18	0.18	0.04	0.18	0.18	0.05	0.40	0.40	0.04	0.39	0.39
Sat Flow, veh/h	3456	4542	621	1781	4730	461	1781	2324	1201	1781	1870	1585
Grp Volume(v), veh/h	48	381	201	55	252	136	74	83	80	42	62	58
Grp Sat Flow(s),veh/h/ln	1728	1702	1759	1781	1702	1787	1781	1870	1654	1781	1870	1585
Q Serve(g_s), s	1.1	8.5	8.7	2.5	5.4	5.5	2.0	2.3	2.5	1.1	1.7	1.9
Cycle Q Clear(g_c), s	1.1	8.5	8.7	2.5	5.4	5.5	2.0	2.3	2.5	1.1	1.7	1.9
Prop In Lane	1.00		0.35	1.00		0.26	1.00		0.73	1.00		1.00
Lane Grp Cap(c), veh/h	140	606	313	77	616	323	669	750	663	607	727	616
V/C Ratio(X)	0.34	0.63	0.64	0.71	0.41	0.42	0.11	0.11	0.12	0.07	0.09	0.09
Avail Cap(c_a), veh/h	462	1447	748	325	1613	847	797	750	663	735	727	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	31.3	31.4	38.9	29.8	29.9	13.6	15.5	15.5	13.9	15.9	16.0
Incr Delay (d2), s/veh	1.4	1.1	2.2	11.3	0.4	0.9	0.1	0.3	0.4	0.0	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.5	3.8	1.3	2.2	2.4	0.8	1.0	1.0	0.4	0.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	32.4	33.6	50.2	30.3	30.7	13.6	15.8	15.9	13.9	16.1	16.3
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		630			443			237			162	
Approach Delay, s/veh		33.4			32.9			15.1			15.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	40.0	10.6	21.7	11.1	39.0	10.3	21.9
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	9.0	33.0	15.0	35.0	10.0	32.0	11.0	39.0
Max Q Clear Time (g_c+I1), s	3.1	4.5	4.5	10.7	4.0	3.9	3.1	7.5
Green Ext Time (p_c), s	0.0	0.9	0.1	3.9	0.1	0.5	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	185	63	25	200	4	46	4	14	7	5	8
Future Vol, veh/h	11	185	63	25	200	4	46	4	14	7	5	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	201	68	27	217	4	50	4	15	8	5	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	221	0	0	269	0	0	424	534	135	400	566	111
Stage 1	-	-	-	-	-	-	259	259	-	273	273	-
Stage 2	-	-	-	-	-	-	165	275	-	127	293	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1345	-	-	1292	-	-	514	451	889	535	432	921
Stage 1	-	-	-	-	-	-	723	692	-	710	683	-
Stage 2	-	-	-	-	-	-	821	681	-	863	669	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1345	-	-	1292	-	-	493	437	889	510	419	921
Mov Cap-2 Maneuver	-	-	-	-	-	-	493	437	-	510	419	-
Stage 1	-	-	-	-	-	-	716	686	-	704	669	-
Stage 2	-	-	-	-	-	-	790	667	-	835	663	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.9	12.3	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	493	723	1345	-	-	1292	-	-	510	630
HCM Lane V/C Ratio	0.101	0.027	0.009	-	-	0.021	-	-	0.015	0.022
HCM Control Delay (s)	13.1	10.1	7.7	-	-	7.8	-	-	12.2	10.8
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.3	0.1	0	-	-	0.1	-	-	0	0.1

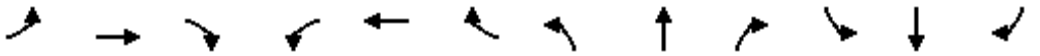
Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	13	0	0	36	6	20	0	11	80	3
Future Vol, veh/h	9	0	13	0	0	36	6	20	0	11	80	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	14	0	0	39	7	22	0	12	87	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	169	149	89	-	-	22	90	0	-	22	0	0
Stage 1	113	113	-	-	-	-	-	-	-	-	-	-
Stage 2	56	36	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	-	-	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	795	743	969	0	0	1055	1505	-	0	1593	-	-
Stage 1	892	802	-	0	0	-	-	-	0	-	-	-
Stage 2	956	865	-	0	0	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	758	733	969	-	-	1055	1505	-	-	1593	-	-
Mov Cap-2 Maneuver	758	733	-	-	-	-	-	-	-	-	-	-
Stage 1	888	796	-	-	-	-	-	-	-	-	-	-
Stage 2	916	861	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	8.5	1.7	0.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1505	-	758	969	1055	1593	-	-
HCM Lane V/C Ratio	0.004	-	0.013	0.015	0.037	0.008	-	-
HCM Control Delay (s)	7.4	0	9.8	8.8	8.5	7.3	0	-
HCM Lane LOS	A	A	A	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	0	0	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	32	7	51	35	2	10	214	74	2	234	47
Future Volume (veh/h)	41	32	7	51	35	2	10	214	74	2	234	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	35	8	55	38	2	11	233	80	2	254	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	552	456	101	550	541	28	552	970	411	574	767	152
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1367	2894	639	1364	3436	179	1074	3741	1585	1067	2958	584
Grp Volume(v), veh/h	45	21	22	55	20	20	11	233	80	2	151	154
Grp Sat Flow(s),veh/h/ln	1367	1777	1755	1364	1777	1838	1074	1870	1585	1067	1777	1765
Q Serve(g_s), s	0.6	0.2	0.2	0.7	0.2	0.2	0.2	1.0	0.8	0.0	1.4	1.5
Cycle Q Clear(g_c), s	0.8	0.2	0.2	1.0	0.2	0.2	1.6	1.0	0.8	1.0	1.4	1.5
Prop In Lane	1.00		0.36	1.00		0.10	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	552	280	277	550	280	290	552	970	411	574	461	458
V/C Ratio(X)	0.08	0.08	0.08	0.10	0.07	0.07	0.02	0.24	0.19	0.00	0.33	0.34
Avail Cap(c_a), veh/h	2662	3022	2986	2654	3022	3126	2519	7816	3312	2526	3713	3688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	7.4	7.4	7.8	7.4	7.4	6.8	6.0	5.9	6.4	6.2	6.2
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.8	7.5	7.5	7.9	7.5	7.5	6.9	6.1	6.2	6.4	6.6	6.6
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		88			95			324			307	
Approach Delay, s/veh		7.6			7.7			6.2			6.6	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.3		9.2		11.3		9.2				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		43.0		35.0		43.0		35.0				
Max Q Clear Time (g_c+I1), s		3.6		2.8		3.5		3.0				
Green Ext Time (p_c), s		1.7		0.3		1.7		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	297	33	15	345	31	42	38	19	49	27	76
Future Volume (veh/h)	51	297	33	15	345	31	42	38	19	49	27	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	323	36	16	375	34	36	55	21	53	70	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	751	82	33	644	57	668	1103	398	708	803	680
Arrive On Green	0.04	0.16	0.16	0.02	0.13	0.13	0.03	0.42	0.42	0.04	0.43	0.43
Sat Flow, veh/h	3456	4672	510	1781	4772	426	1781	2624	947	1781	1870	1585
Grp Volume(v), veh/h	55	233	126	16	266	143	36	38	38	53	70	56
Grp Sat Flow(s),veh/h/ln	1728	1702	1779	1781	1702	1794	1781	1870	1700	1781	1870	1585
Q Serve(g_s), s	1.2	4.9	5.0	0.7	5.8	5.9	0.9	1.0	1.0	1.3	1.7	1.6
Cycle Q Clear(g_c), s	1.2	4.9	5.0	0.7	5.8	5.9	0.9	1.0	1.0	1.3	1.7	1.6
Prop In Lane	1.00		0.29	1.00		0.24	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	154	547	286	33	459	242	668	786	715	708	803	680
V/C Ratio(X)	0.36	0.43	0.44	0.48	0.58	0.59	0.05	0.05	0.05	0.07	0.09	0.08
Avail Cap(c_a), veh/h	528	1604	838	250	1561	822	811	786	715	880	834	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	29.7	29.8	38.1	31.9	31.9	11.9	13.5	13.5	11.6	13.3	13.3
Incr Delay (d2), s/veh	1.4	0.5	1.1	10.2	1.2	2.3	0.0	0.1	0.1	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.0	2.2	0.4	2.4	2.6	0.3	0.4	0.4	0.5	0.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	30.2	30.8	48.4	33.0	34.2	11.9	13.6	13.6	11.7	13.3	13.3
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		414			425			112			179	
Approach Delay, s/veh		31.4			34.0			13.1			12.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	40.0	8.5	19.6	9.7	40.7	10.5	17.6
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	11.0	33.0	11.0	37.0	9.0	35.0	12.0	36.0
Max Q Clear Time (g_c+I1), s	3.3	3.0	2.7	7.0	2.9	3.7	3.2	7.9
Green Ext Time (p_c), s	0.0	0.4	0.0	2.4	0.0	0.5	0.1	2.7

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	51	16	65	87	5
Future Vol, veh/h	15	51	16	65	87	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	55	17	71	95	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	200	95	100	0	-	0
Stage 1	95	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	789	962	1493	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	780	962	1493	-	-	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	919	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1493	-	780	962	-	-
HCM Lane V/C Ratio	0.012	-	0.021	0.058	-	-
HCM Control Delay (s)	7.4	-	9.7	9	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.2	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	276	49	14	201	13	53	10	31	8	5	14
Future Vol, veh/h	10	276	49	14	201	13	53	10	31	8	5	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	300	53	15	218	14	58	11	34	9	5	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	353	0	0	491	611	177	433	630	116
Stage 1	-	-	-	-	-	-	349	349	-	255	255	-
Stage 2	-	-	-	-	-	-	142	262	-	178	375	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1333	-	-	1202	-	-	461	407	835	507	397	914
Stage 1	-	-	-	-	-	-	640	632	-	727	695	-
Stage 2	-	-	-	-	-	-	846	690	-	806	615	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1333	-	-	1202	-	-	442	399	835	469	389	914
Mov Cap-2 Maneuver	-	-	-	-	-	-	442	399	-	469	389	-
Stage 1	-	-	-	-	-	-	635	627	-	721	687	-
Stage 2	-	-	-	-	-	-	815	682	-	754	610	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.5	12.9	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	442	659	1333	-	-	1202	-	-	469	674
HCM Lane V/C Ratio	0.13	0.068	0.008	-	-	0.013	-	-	0.019	0.031
HCM Control Delay (s)	14.4	10.9	7.7	-	-	8	-	-	12.8	10.5
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.4	0.2	0	-	-	0	-	-	0.1	0.1

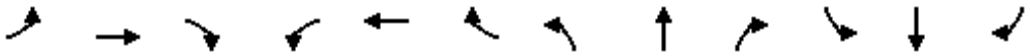
Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	12	0	0	22	4	64	0	38	23	8
Future Vol, veh/h	9	0	12	0	0	22	4	64	0	38	23	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	13	0	0	24	4	70	0	41	25	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	202	190	30	-	-	70	34	0	-	70	0	0
Stage 1	112	112	-	-	-	-	-	-	-	-	-	-
Stage 2	90	78	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	-	-	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	756	705	1044	0	0	993	1578	-	0	1531	-	-
Stage 1	893	803	-	0	0	-	-	-	0	-	-	-
Stage 2	917	830	-	0	0	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	721	684	1044	-	-	993	1578	-	-	1531	-	-
Mov Cap-2 Maneuver	721	684	-	-	-	-	-	-	-	-	-	-
Stage 1	890	781	-	-	-	-	-	-	-	-	-	-
Stage 2	892	828	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	8.7	0.4	4.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1578	-	721	1044	993	1531	-	-
HCM Lane V/C Ratio	0.003	-	0.014	0.012	0.024	0.027	-	-
HCM Control Delay (s)	7.3	0	10.1	8.5	8.7	7.4	0	-
HCM Lane LOS	A	A	B	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	0	0	0.1	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	40	9	68	51	0	11	248	60	7	289	61
Future Volume (veh/h)	44	40	9	68	51	0	11	248	60	7	289	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	43	10	74	55	0	12	270	65	8	314	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	288	65	211	355	0	807	2773	1175	895	2172	451
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.00	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	1349	2883	647	1351	3647	0	1003	3741	1585	1109	2930	608
Grp Volume(v), veh/h	48	26	27	74	55	0	12	270	65	8	189	191
Grp Sat Flow(s),veh/h/ln	1349	1777	1754	1351	1777	0	1003	1870	1585	1109	1777	1761
Q Serve(g_s), s	2.5	1.0	1.1	4.0	1.1	0.0	0.3	1.5	0.8	0.2	2.3	2.4
Cycle Q Clear(g_c), s	3.6	1.0	1.1	5.1	1.1	0.0	2.6	1.5	0.8	1.7	2.3	2.4
Prop In Lane	1.00		0.37	1.00		0.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	211	177	175	211	355	0	807	2773	1175	895	1317	1305
V/C Ratio(X)	0.23	0.15	0.15	0.35	0.15	0.00	0.01	0.10	0.06	0.01	0.14	0.15
Avail Cap(c_a), veh/h	826	988	975	827	1976	0	807	2773	1175	895	1317	1305
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	31.1	31.1	33.4	31.1	0.0	3.2	2.7	2.6	3.0	2.8	2.8
Incr Delay (d2), s/veh	0.5	0.4	0.4	1.0	0.2	0.0	0.0	0.1	0.1	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	0.5	1.3	0.5	0.0	0.0	0.4	0.2	0.0	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	31.4	31.5	34.4	31.3	0.0	3.3	2.8	2.7	3.0	3.1	3.1
LnGrp LOS	C	C	C	C	C	A	A	A	A	A	A	A
Approach Vol, veh/h		101			129			347			388	
Approach Delay, s/veh		32.3			33.1			2.8			3.1	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.0		13.5		62.0		13.5				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		56.0		42.0		56.0		42.0				
Max Q Clear Time (g_c+I1), s		4.6		5.6		4.4		7.1				
Green Ext Time (p_c), s		2.2		0.4		2.5		0.5				

Intersection Summary		
HCM 6th Ctrl Delay		10.0
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	470	65	51	325	59	104	51	53	55	48	74
Future Volume (veh/h)	66	470	65	51	325	59	104	51	53	55	48	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	511	71	55	353	64	75	108	58	60	73	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	806	110	77	751	132	663	932	469	614	735	623
Arrive On Green	0.05	0.18	0.18	0.04	0.17	0.17	0.05	0.40	0.40	0.05	0.39	0.39
Sat Flow, veh/h	3456	4542	621	1781	4368	769	1781	2346	1182	1781	1870	1585
Grp Volume(v), veh/h	72	381	201	55	273	144	75	85	81	60	73	66
Grp Sat Flow(s),veh/h/ln	1728	1702	1759	1781	1702	1732	1781	1870	1658	1781	1870	1585
Q Serve(g_s), s	1.7	8.6	8.8	2.5	6.0	6.2	2.0	2.4	2.6	1.6	2.0	2.2
Cycle Q Clear(g_c), s	1.7	8.6	8.8	2.5	6.0	6.2	2.0	2.4	2.6	1.6	2.0	2.2
Prop In Lane	1.00		0.35	1.00		0.44	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	168	604	312	77	585	298	663	743	658	614	735	623
V/C Ratio(X)	0.43	0.63	0.64	0.71	0.47	0.48	0.11	0.11	0.12	0.10	0.10	0.11
Avail Cap(c_a), veh/h	458	1434	741	322	1598	813	790	743	658	726	735	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	31.7	31.7	39.2	31.0	31.1	13.5	15.8	15.9	13.6	15.9	16.0
Incr Delay (d2), s/veh	1.7	1.1	2.2	11.5	0.6	1.2	0.1	0.3	0.4	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.5	3.8	1.3	2.4	2.7	0.8	1.0	1.0	0.6	0.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	32.7	34.0	50.8	31.5	32.3	13.6	16.1	16.3	13.7	16.2	16.3
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		654			472			241			199	
Approach Delay, s/veh		33.9			34.0			15.4			15.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	40.0	10.6	21.7	11.1	39.6	11.1	21.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	9.0	33.0	15.0	35.0	10.0	32.0	11.0	39.0
Max Q Clear Time (g_c+I1), s	3.6	4.6	4.5	10.8	4.0	4.2	3.7	8.2
Green Ext Time (p_c), s	0.0	0.9	0.1	3.9	0.1	0.6	0.1	2.8

Intersection Summary	
HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	32	54	84	106	16
Future Vol, veh/h	9	32	54	84	106	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	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	35	59	91	115	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	324	115	132	0	-	0
Stage 1	115	-	-	-	-	-
Stage 2	209	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	670	937	1453	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	643	937	1453	-	-	-
Mov Cap-2 Maneuver	643	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	826	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1453	-	643	937	-	-
HCM Lane V/C Ratio	0.04	-	0.015	0.037	-	-
HCM Control Delay (s)	7.6	-	10.7	9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	0.1	-	-

APPENDIX F: Future 2031 Level-of-Service Analysis

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	236	68	31	254	6	20	3	14	8	6	10
Future Vol, veh/h	14	236	68	31	254	6	20	3	14	8	6	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	257	74	34	276	7	22	3	15	9	7	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	283	0	0	331	0	0	534	675	166	508	709	142
Stage 1	-	-	-	-	-	-	324	324	-	348	348	-
Stage 2	-	-	-	-	-	-	210	351	-	160	361	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1276	-	-	1225	-	-	429	374	849	448	358	880
Stage 1	-	-	-	-	-	-	662	648	-	641	633	-
Stage 2	-	-	-	-	-	-	773	631	-	826	624	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1276	-	-	1225	-	-	405	359	849	424	344	880
Mov Cap-2 Maneuver	-	-	-	-	-	-	405	359	-	424	344	-
Stage 1	-	-	-	-	-	-	654	640	-	633	615	-
Stage 2	-	-	-	-	-	-	734	613	-	798	617	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.9	12.6	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	405	684	1276	-	-	1225	-	-	424	555
HCM Lane V/C Ratio	0.054	0.027	0.012	-	-	0.028	-	-	0.021	0.031
HCM Control Delay (s)	14.4	10.4	7.9	-	-	8	-	-	13.7	11.7
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0.1	-	-	0.1	0.1

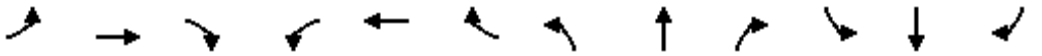
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	17	7	25	103	4
Future Vol, veh/h	11	17	7	25	103	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	18	8	27	112	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	157	114	116	0	-	0
Stage 1	114	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	834	939	1473	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	829	939	1473	-	-	-
Mov Cap-2 Maneuver	829	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	979	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	1.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1473	-	892	-	-
HCM Lane V/C Ratio	0.005	-	0.034	-	-
HCM Control Delay (s)	7.5	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

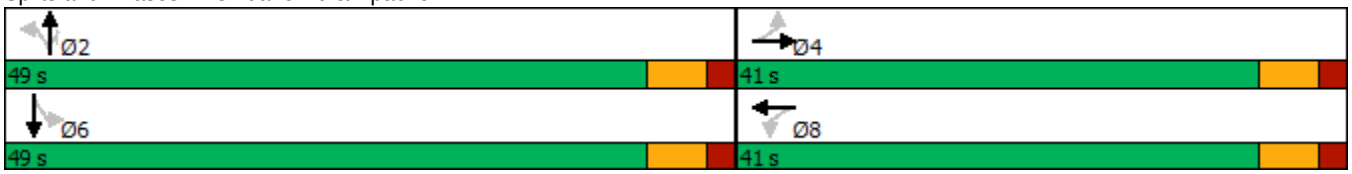


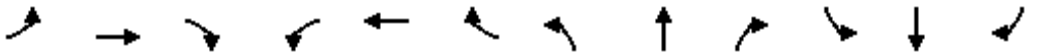
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	31	8	65	41	3	13	273	94	3	298	58
Future Volume (vph)	44	31	8	65	41	3	13	273	94	3	298	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.969			0.991			0.995	0.850		0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3429	0	1770	3507	0	1770	3373	1441	1770	3454	0
Flt Permitted	0.870			0.870			0.523			0.558		
Satd. Flow (perm)	1621	3429	0	1621	3507	0	974	3373	1441	1039	3454	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			3			5	92		34	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		153			171			2128			1221	
Travel Time (s)		3.0			3.3			32.2			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	34	9	71	45	3	14	297	102	3	324	63
Shared Lane Traffic (%)									10%			
Lane Group Flow (vph)	48	43	0	71	48	0	14	307	92	3	387	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0	24.0	24.0	24.0	
Total Split (s)	41.0	41.0		41.0	41.0		49.0	49.0	49.0	49.0	49.0	
Total Split (%)	45.6%	45.6%		45.6%	45.6%		54.4%	54.4%	54.4%	54.4%	54.4%	
Maximum Green (s)	35.0	35.0		35.0	35.0		43.0	43.0	43.0	43.0	43.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)	7.0	7.0		7.1	7.1		16.9	16.9	16.9	16.9	16.9	
Actuated g/C Ratio	0.24	0.24		0.25	0.25		0.59	0.59	0.59	0.59	0.59	
v/c Ratio	0.12	0.05		0.18	0.06		0.02	0.15	0.10	0.00	0.19	
Control Delay	9.2	7.2		9.6	8.0		7.2	6.2	2.7	7.0	5.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	9.2	7.2		9.6	8.0		7.2	6.2	2.7	7.0	5.9	
LOS	A	A		A	A		A	A	A	A	A	
Approach Delay		8.2			9.0			5.5			5.9	
Approach LOS		A			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 28.6			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.19			
Intersection Signal Delay: 6.3		Intersection LOS: A	
Intersection Capacity Utilization 31.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Idaho Rd & Apache Tr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	379	42	20	440	30	53	46	24	30	28	72
Future Volume (veh/h)	58	379	42	20	440	30	53	46	24	30	28	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	412	46	22	478	33	45	69	26	33	66	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	853	94	43	780	53	647	1083	387	661	757	641
Arrive On Green	0.05	0.18	0.18	0.02	0.16	0.16	0.04	0.41	0.41	0.03	0.40	0.40
Sat Flow, veh/h	3456	4670	513	1781	4881	334	1781	2632	940	1781	1870	1585
Grp Volume(v), veh/h	63	298	160	22	332	179	45	48	47	33	66	54
Grp Sat Flow(s),veh/h/ln	1728	1702	1778	1781	1702	1810	1781	1870	1701	1781	1870	1585
Q Serve(g_s), s	1.4	6.3	6.5	1.0	7.3	7.4	1.2	1.2	1.3	0.9	1.7	1.7
Cycle Q Clear(g_c), s	1.4	6.3	6.5	1.0	7.3	7.4	1.2	1.2	1.3	0.9	1.7	1.7
Prop In Lane	1.00		0.29	1.00		0.18	1.00		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	163	622	325	43	544	289	647	770	700	661	757	641
V/C Ratio(X)	0.39	0.48	0.49	0.51	0.61	0.62	0.07	0.06	0.07	0.05	0.09	0.08
Avail Cap(c_a), veh/h	517	1571	820	244	1528	813	776	770	700	848	816	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	29.4	29.4	38.7	31.4	31.4	12.7	14.3	14.3	13.0	14.7	14.7
Incr Delay (d2), s/veh	1.5	0.6	1.2	9.1	1.1	2.2	0.0	0.2	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.6	2.8	0.5	3.0	3.3	0.4	0.5	0.5	0.3	0.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	29.9	30.6	47.7	32.5	33.6	12.8	14.4	14.5	13.0	14.8	14.8
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		521			533			140			153	
Approach Delay, s/veh		31.2			33.5			13.9			14.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	40.0	8.9	21.7	10.2	39.4	10.8	19.8
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	11.0	33.0	11.0	37.0	9.0	35.0	12.0	36.0
Max Q Clear Time (g_c+I1), s	2.9	3.3	3.0	8.5	3.2	3.7	3.4	9.4
Green Ext Time (p_c), s	0.0	0.5	0.0	3.1	0.0	0.5	0.1	3.4

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	352	21	14	258	17	44	11	37	10	4	18
Future Vol, veh/h	13	352	21	14	258	17	44	11	37	10	4	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	383	23	15	280	18	48	12	40	11	4	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	298	0	0	406	0	0	595	751	203	545	753	149
Stage 1	-	-	-	-	-	-	423	423	-	319	319	-
Stage 2	-	-	-	-	-	-	172	328	-	226	434	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1260	-	-	1149	-	-	388	338	804	421	337	871
Stage 1	-	-	-	-	-	-	579	586	-	667	652	-
Stage 2	-	-	-	-	-	-	813	646	-	756	579	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1260	-	-	1149	-	-	369	330	804	382	329	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	369	330	-	382	329	-
Stage 1	-	-	-	-	-	-	573	580	-	660	644	-
Stage 2	-	-	-	-	-	-	779	638	-	696	573	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.4	13.7	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	369	605	1260	-	-	1149	-	-	382	670
HCM Lane V/C Ratio	0.13	0.086	0.011	-	-	0.013	-	-	0.028	0.036
HCM Control Delay (s)	16.2	11.5	7.9	-	-	8.2	-	-	14.7	10.6
HCM Lane LOS	C	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.4	0.3	0	-	-	0	-	-	0.1	0.1

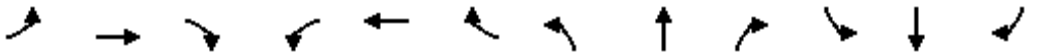
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	15	6	82	30	10
Future Vol, veh/h	11	15	6	82	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	16	7	89	33	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	142	39	44	0	-	0
Stage 1	39	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	851	1033	1564	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	847	1033	1564	-	-	-
Mov Cap-2 Maneuver	847	-	-	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	921	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1564	-	945	-	-
HCM Lane V/C Ratio	0.004	-	0.03	-	-
HCM Control Delay (s)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



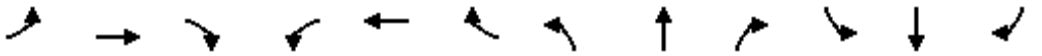
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	45	11	87	53	0	14	317	76	8	369	68
Future Volume (veh/h)	51	45	11	87	53	0	14	317	76	8	369	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	49	12	95	58	0	15	345	83	9	401	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	337	80	230	420	0	722	2717	1151	817	2178	399
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.00	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1345	2852	674	1341	3647	0	919	3741	1585	1036	2999	549
Grp Volume(v), veh/h	55	30	31	95	58	0	15	345	83	9	236	239
Grp Sat Flow(s),veh/h/ln	1345	1777	1749	1341	1777	0	919	1870	1585	1036	1777	1772
Q Serve(g_s), s	2.9	1.2	1.2	5.3	1.1	0.0	0.4	2.1	1.2	0.2	3.2	3.3
Cycle Q Clear(g_c), s	4.1	1.2	1.2	6.5	1.1	0.0	3.7	2.1	1.2	2.3	3.2	3.3
Prop In Lane	1.00		0.39	1.00		0.00	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	233	210	207	230	420	0	722	2717	1151	817	1290	1287
V/C Ratio(X)	0.24	0.14	0.15	0.41	0.14	0.00	0.02	0.13	0.07	0.01	0.18	0.19
Avail Cap(c_a), veh/h	806	968	953	803	1936	0	722	2717	1151	817	1290	1287
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	30.5	30.5	33.5	30.5	0.0	3.9	3.2	3.0	3.5	3.3	3.3
Incr Delay (d2), s/veh	0.5	0.3	0.3	1.2	0.1	0.0	0.1	0.1	0.1	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.5	0.5	1.7	0.5	0.0	0.1	0.6	0.3	0.0	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	30.8	30.9	34.6	30.6	0.0	4.0	3.3	3.2	3.6	3.6	3.7
LnGrp LOS	C	C	C	C	C	A	A	A	A	A	A	A
Approach Vol, veh/h		116			153			443			484	
Approach Delay, s/veh		31.8			33.1			3.3			3.6	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.0		15.1		62.0		15.1				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		56.0		42.0		56.0		42.0				
Max Q Clear Time (g_c+I1), s		5.7		6.1		5.3		8.5				
Green Ext Time (p_c), s		2.9		0.5		3.3		0.6				

Intersection Summary		
HCM 6th Ctrl Delay		10.0
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	599	83	65	415	41	132	59	68	49	58	77
Future Volume (veh/h)	56	599	83	65	415	41	132	59	68	49	58	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	651	90	71	451	45	94	133	74	53	79	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	966	132	92	1042	103	619	868	455	549	684	580
Arrive On Green	0.04	0.21	0.21	0.05	0.22	0.22	0.05	0.38	0.38	0.04	0.37	0.37
Sat Flow, veh/h	3456	4542	621	1781	4726	465	1781	2312	1211	1781	1870	1585
Grp Volume(v), veh/h	61	486	255	71	323	173	94	106	101	53	79	74
Grp Sat Flow(s),veh/h/ln	1728	1702	1759	1781	1702	1787	1781	1870	1652	1781	1870	1585
Q Serve(g_s), s	1.5	11.5	11.7	3.5	7.2	7.3	2.9	3.3	3.6	1.6	2.5	2.7
Cycle Q Clear(g_c), s	1.5	11.5	11.7	3.5	7.2	7.3	2.9	3.3	3.6	1.6	2.5	2.7
Prop In Lane	1.00		0.35	1.00		0.26	1.00		0.73	1.00		1.00
Lane Grp Cap(c), veh/h	152	724	374	92	751	394	619	702	620	549	684	580
V/C Ratio(X)	0.40	0.67	0.68	0.77	0.43	0.44	0.15	0.15	0.16	0.10	0.12	0.13
Avail Cap(c_a), veh/h	433	1356	700	304	1511	793	730	702	620	658	684	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	31.8	31.9	41.1	29.5	29.6	15.8	18.2	18.3	16.0	18.5	18.5
Incr Delay (d2), s/veh	1.7	1.1	2.2	12.4	0.4	0.8	0.1	0.5	0.6	0.1	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.7	5.1	1.8	2.9	3.2	1.1	1.5	1.4	0.6	1.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	32.9	34.0	53.5	29.9	30.3	15.9	18.6	18.8	16.0	18.8	19.0
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		802			567			301			206	
Approach Delay, s/veh		34.0			33.0			17.8			18.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	40.0	11.6	25.7	11.5	39.1	10.9	26.4
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	9.0	33.0	15.0	35.0	10.0	32.0	11.0	39.0
Max Q Clear Time (g_c+I1), s	3.6	5.6	5.5	13.7	4.9	4.7	3.5	9.3
Green Ext Time (p_c), s	0.0	1.2	0.1	5.0	0.1	0.6	0.1	3.4

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	236	78	32	254	6	51	5	17	8	7	10
Future Vol, veh/h	14	236	78	32	254	6	51	5	17	8	7	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	257	85	35	276	7	55	5	18	9	8	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	283	0	0	342	0	0	542	683	171	511	722	142
Stage 1	-	-	-	-	-	-	330	330	-	350	350	-
Stage 2	-	-	-	-	-	-	212	353	-	161	372	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1276	-	-	1214	-	-	423	370	843	446	351	880
Stage 1	-	-	-	-	-	-	657	644	-	639	631	-
Stage 2	-	-	-	-	-	-	770	629	-	825	617	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1276	-	-	1214	-	-	398	355	843	418	337	880
Mov Cap-2 Maneuver	-	-	-	-	-	-	398	355	-	418	337	-
Stage 1	-	-	-	-	-	-	649	636	-	631	613	-
Stage 2	-	-	-	-	-	-	729	611	-	791	610	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.9	14.1	12.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	398	642	1276	-	-	1214	-	-	418	529
HCM Lane V/C Ratio	0.139	0.037	0.012	-	-	0.029	-	-	0.021	0.035
HCM Control Delay (s)	15.5	10.8	7.9	-	-	8.1	-	-	13.8	12.1
HCM Lane LOS	C	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.5	0.1	0	-	-	0.1	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	17	0	0	36	7	25	0	11	103	4
Future Vol, veh/h	11	0	17	0	0	36	7	25	0	11	103	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	18	0	0	39	8	27	0	12	112	4

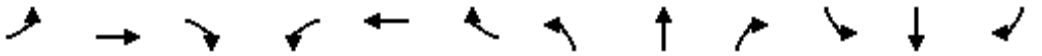
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	201	181	114	-	-	27	116	0	-	27	0	0
Stage 1	138	138	-	-	-	-	-	-	-	-	-	-
Stage 2	63	43	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	-	-	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	757	713	939	0	0	1048	1473	-	0	1587	-	-
Stage 1	865	782	-	0	0	-	-	-	0	-	-	-
Stage 2	948	859	-	0	0	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	721	703	939	-	-	1048	1473	-	-	1587	-	-
Mov Cap-2 Maneuver	721	703	-	-	-	-	-	-	-	-	-	-
Stage 1	860	776	-	-	-	-	-	-	-	-	-	-
Stage 2	907	854	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	8.6	1.6	0.7
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1473	-	721	939	1048	1587	-	-
HCM Lane V/C Ratio	0.005	-	0.017	0.02	0.037	0.008	-	-
HCM Control Delay (s)	7.5	0	10.1	8.9	8.6	7.3	0	-
HCM Lane LOS	A	A	B	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	0.1	0	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	55	51	71	51	14	307	92	3	389
v/c Ratio	0.13	0.06	0.17	0.06	0.02	0.15	0.10	0.00	0.19
Control Delay	9.2	7.3	9.5	8.0	7.2	6.2	2.7	7.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	7.3	9.5	8.0	7.2	6.2	2.7	7.0	5.8
Queue Length 50th (ft)	6	2	7	2	1	16	0	0	18
Queue Length 95th (ft)	20	8	24	9	7	34	15	3	38
Internal Link Dist (ft)		73		91		2048			1141
Turn Bay Length (ft)									
Base Capacity (vph)	1656	3447	1656	3507	972	3373	1441	1039	3451
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.01	0.04	0.01	0.01	0.09	0.06	0.00	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	39	8	65	44	3	13	273	94	3	298	60
Future Volume (veh/h)	51	39	8	65	44	3	13	273	94	3	298	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	42	9	71	48	3	14	297	102	3	324	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	538	498	103	537	578	36	524	1085	460	550	857	170
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1354	2930	608	1354	3399	210	995	3741	1585	986	2956	586
Grp Volume(v), veh/h	55	25	26	71	25	26	14	297	102	3	193	196
Grp Sat Flow(s),veh/h/ln	1354	1777	1761	1354	1777	1832	995	1870	1585	986	1777	1765
Q Serve(g_s), s	0.8	0.3	0.3	1.0	0.3	0.3	0.3	1.4	1.1	0.1	1.9	2.0
Cycle Q Clear(g_c), s	1.1	0.3	0.3	1.3	0.3	0.3	2.2	1.4	1.1	1.4	1.9	2.0
Prop In Lane	1.00		0.35	1.00		0.11	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	538	302	299	537	302	311	524	1085	460	550	515	512
V/C Ratio(X)	0.10	0.08	0.09	0.13	0.08	0.08	0.03	0.27	0.22	0.01	0.37	0.38
Avail Cap(c_a), veh/h	2440	2799	2773	2439	2799	2886	2161	7238	3067	2171	3438	3415
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.2	7.8	7.8	8.3	7.8	7.8	7.2	6.1	6.0	6.6	6.3	6.3
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.3	7.9	7.9	8.4	7.9	7.9	7.2	6.2	6.2	6.6	6.7	6.8
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		106			122			413			392	
Approach Delay, s/veh		8.1			8.2			6.3			6.8	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		12.4		9.8		12.4		9.8				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		43.0		35.0		43.0		35.0				
Max Q Clear Time (g_c+I1), s		4.2		3.1		4.0		3.3				
Green Ext Time (p_c), s		2.2		0.4		2.2		0.4				

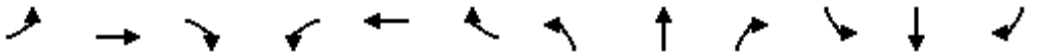
Intersection Summary												
HCM 6th Ctrl Delay			6.9									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	70	458	22	519	45	91	61	71	65
v/c Ratio	0.24	0.38	0.15	0.59	0.08	0.07	0.09	0.10	0.09
Control Delay	42.5	28.7	43.8	35.9	12.7	10.0	12.6	12.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	28.7	43.8	35.9	12.7	10.0	12.6	12.8	0.2
Queue Length 50th (ft)	19	68	12	99	13	9	17	13	0
Queue Length 95th (ft)	43	123	37	141	36	24	41	48	0
Internal Link Dist (ft)		15		1238		264		130	
Turn Bay Length (ft)									
Base Capacity (vph)	503	2272	237	2215	622	1381	717	762	772
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.20	0.09	0.23	0.07	0.07	0.09	0.09	0.08

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	379	42	20	440	38	53	48	24	56	33	92
Future Volume (veh/h)	64	379	42	20	440	38	53	48	24	56	33	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	412	46	22	478	41	45	70	26	61	84	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	867	95	43	772	65	629	1064	375	671	766	649
Arrive On Green	0.05	0.19	0.19	0.02	0.16	0.16	0.04	0.40	0.40	0.05	0.41	0.41
Sat Flow, veh/h	3456	4670	513	1781	4795	407	1781	2642	931	1781	1870	1585
Grp Volume(v), veh/h	70	298	160	22	338	181	45	48	48	61	84	68
Grp Sat Flow(s),veh/h/ln	1728	1702	1778	1781	1702	1797	1781	1870	1703	1781	1870	1585
Q Serve(g_s), s	1.6	6.4	6.6	1.0	7.6	7.7	1.2	1.3	1.4	1.6	2.3	2.2
Cycle Q Clear(g_c), s	1.6	6.4	6.6	1.0	7.6	7.7	1.2	1.3	1.4	1.6	2.3	2.2
Prop In Lane	1.00		0.29	1.00		0.23	1.00		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	168	632	330	43	548	289	629	753	686	671	766	649
V/C Ratio(X)	0.42	0.47	0.48	0.51	0.62	0.63	0.07	0.06	0.07	0.09	0.11	0.10
Avail Cap(c_a), veh/h	506	1537	803	239	1496	790	755	753	686	828	799	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	29.8	29.8	39.5	32.0	32.1	13.1	15.0	15.0	12.9	15.0	14.9
Incr Delay (d2), s/veh	1.6	0.5	1.1	9.2	1.1	2.2	0.0	0.2	0.2	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.6	2.8	0.5	3.1	3.4	0.5	0.6	0.6	0.6	0.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	30.3	30.9	48.7	33.1	34.3	13.2	15.2	15.2	13.0	15.0	15.0
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		528			541			141			213	
Approach Delay, s/veh		31.7			34.2			14.5			14.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	40.0	9.0	22.2	10.2	40.5	11.0	20.2
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	11.0	33.0	11.0	37.0	9.0	35.0	12.0	36.0
Max Q Clear Time (g_c+I1), s	3.6	3.4	3.0	8.6	3.2	4.3	3.6	9.7
Green Ext Time (p_c), s	0.1	0.5	0.0	3.1	0.0	0.7	0.1	3.5

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	51	16	83	111	5
Future Vol, veh/h	15	51	16	83	111	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	55	17	90	121	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	245	121	126	0	-	0
Stage 1	121	-	-	-	-	-
Stage 2	124	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	743	930	1460	-	-	-
Stage 1	904	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	734	930	1460	-	-	-
Mov Cap-2 Maneuver	734	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1460	-	734	930	-	-
HCM Lane V/C Ratio	0.012	-	0.022	0.06	-	-
HCM Control Delay (s)	7.5	-	10	9.1	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.2	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	352	53	17	258	17	63	12	39	10	6	18
Future Vol, veh/h	13	352	53	17	258	17	63	12	39	10	6	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	383	58	18	280	18	68	13	42	11	7	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	298	0	0	441	0	0	620	774	221	551	794	149
Stage 1	-	-	-	-	-	-	440	440	-	325	325	-
Stage 2	-	-	-	-	-	-	180	334	-	226	469	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1260	-	-	1115	-	-	372	328	783	417	319	871
Stage 1	-	-	-	-	-	-	566	576	-	661	648	-
Stage 2	-	-	-	-	-	-	804	642	-	756	559	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1260	-	-	1115	-	-	350	319	783	374	310	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	350	319	-	374	310	-
Stage 1	-	-	-	-	-	-	560	570	-	654	638	-
Stage 2	-	-	-	-	-	-	765	632	-	691	553	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.5	15.1	12.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	350	583	1260	-	-	1115	-	-	374	600
HCM Lane V/C Ratio	0.196	0.095	0.011	-	-	0.017	-	-	0.029	0.043
HCM Control Delay (s)	17.8	11.8	7.9	-	-	8.3	-	-	14.9	11.3
HCM Lane LOS	C	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.7	0.3	0	-	-	0.1	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	15	0	0	22	6	82	0	38	30	10
Future Vol, veh/h	11	0	15	0	0	22	6	82	0	38	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	16	0	0	24	7	89	0	41	33	11

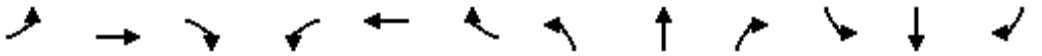
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	236	224	39	-	-	89	44	0	-	89	0	0
Stage 1	121	121	-	-	-	-	-	-	-	-	-	-
Stage 2	115	103	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	-	-	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	718	675	1033	0	0	969	1564	-	0	1506	-	-
Stage 1	883	796	-	0	0	-	-	-	0	-	-	-
Stage 2	890	810	-	0	0	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	683	653	1033	-	-	969	1564	-	-	1506	-	-
Mov Cap-2 Maneuver	683	653	-	-	-	-	-	-	-	-	-	-
Stage 1	879	774	-	-	-	-	-	-	-	-	-	-
Stage 2	864	806	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	8.8	0.5	3.6
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1564	-	683	1033	969	1506	-	-
HCM Lane V/C Ratio	0.004	-	0.018	0.016	0.025	0.027	-	-
HCM Control Delay (s)	7.3	0	10.4	8.5	8.8	7.5	0	-
HCM Lane LOS	A	A	B	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	0.1	0	0.1	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	60	66	95	67	15	353	75	9	484
v/c Ratio	0.34	0.14	0.52	0.14	0.02	0.14	0.07	0.01	0.18
Control Delay	35.7	25.6	42.0	29.9	4.3	3.9	1.4	4.2	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	25.6	42.0	29.9	4.3	3.9	1.4	4.2	3.8
Queue Length 50th (ft)	27	12	44	15	2	25	0	1	32
Queue Length 95th (ft)	62	30	90	33	8	47	13	6	59
Internal Link Dist (ft)		73		91		2048			1141
Turn Bay Length (ft)									
Base Capacity (vph)	700	1828	701	1872	674	2569	1113	753	2627
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.04	0.14	0.04	0.02	0.14	0.07	0.01	0.18

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	50	11	87	62	0	14	317	76	8	369	76
Future Volume (veh/h)	55	50	11	87	62	0	14	317	76	8	369	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	54	12	95	67	0	15	345	83	9	401	83
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	231	350	75	231	428	0	713	2710	1148	814	2127	436
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.00	0.72	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1334	2909	626	1335	3647	0	911	3741	1585	1036	2936	602
Grp Volume(v), veh/h	60	32	34	95	67	0	15	345	83	9	241	243
Grp Sat Flow(s),veh/h/ln	1334	1777	1758	1335	1777	0	911	1870	1585	1036	1777	1762
Q Serve(g_s), s	3.3	1.3	1.3	5.3	1.3	0.0	0.4	2.2	1.2	0.2	3.3	3.4
Cycle Q Clear(g_c), s	4.6	1.3	1.3	6.6	1.3	0.0	3.8	2.2	1.2	2.4	3.3	3.4
Prop In Lane	1.00		0.36	1.00		0.00	1.00		1.00	1.00		0.34
Lane Grp Cap(c), veh/h	231	214	212	231	428	0	713	2710	1148	814	1287	1276
V/C Ratio(X)	0.26	0.15	0.16	0.41	0.16	0.00	0.02	0.13	0.07	0.01	0.19	0.19
Avail Cap(c_a), veh/h	795	965	955	796	1931	0	713	2710	1148	814	1287	1276
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	30.5	30.5	33.5	30.5	0.0	4.0	3.2	3.1	3.6	3.4	3.4
Incr Delay (d2), s/veh	0.6	0.3	0.3	1.2	0.2	0.0	0.1	0.1	0.1	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.5	0.6	1.8	0.6	0.0	0.1	0.6	0.3	0.0	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	30.8	30.8	34.6	30.7	0.0	4.1	3.3	3.2	3.6	3.7	3.7
LnGrp LOS	C	C	C	C	C	A	A	A	A	A	A	A
Approach Vol, veh/h		126			162			443			493	
Approach Delay, s/veh		31.9			33.0			3.3			3.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.0		15.3		62.0		15.3				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		56.0		42.0		56.0		42.0				
Max Q Clear Time (g_c+I1), s		5.8		6.6		5.4		8.6				
Green Ext Time (p_c), s		2.9		0.5		3.3		0.7				

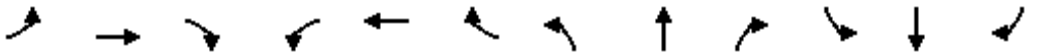
Intersection Summary												
HCM 6th Ctrl Delay			10.4									
HCM 6th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	85	741	71	525	96	191	71	87	77
v/c Ratio	0.29	0.65	0.40	0.43	0.18	0.15	0.13	0.14	0.12
Control Delay	48.2	36.3	51.4	30.8	17.6	10.4	17.2	24.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	36.3	51.4	30.8	17.6	10.4	17.2	24.5	0.4
Queue Length 50th (ft)	26	155	43	99	35	21	24	34	0
Queue Length 95th (ft)	55	209	93	138	82	50	58	85	0
Internal Link Dist (ft)		15		1238		264		130	
Turn Bay Length (ft)									
Base Capacity (vph)	418	1948	293	2166	563	1283	559	618	643
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.38	0.24	0.24	0.17	0.15	0.13	0.14	0.12

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	599	83	65	415	68	132	64	68	65	61	90
Future Volume (veh/h)	78	599	83	65	415	68	132	64	68	65	61	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	651	90	71	451	74	96	136	74	71	90	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	963	132	92	951	153	612	869	446	553	689	584
Arrive On Green	0.05	0.21	0.21	0.05	0.21	0.21	0.05	0.37	0.37	0.05	0.37	0.37
Sat Flow, veh/h	3456	4542	621	1781	4434	712	1781	2330	1196	1781	1870	1585
Grp Volume(v), veh/h	85	486	255	71	344	181	96	108	102	71	90	82
Grp Sat Flow(s),veh/h/ln	1728	1702	1759	1781	1702	1742	1781	1870	1655	1781	1870	1585
Q Serve(g_s), s	2.1	11.6	11.8	3.5	7.8	8.1	2.9	3.4	3.7	2.1	2.8	3.0
Cycle Q Clear(g_c), s	2.1	11.6	11.8	3.5	7.8	8.1	2.9	3.4	3.7	2.1	2.8	3.0
Prop In Lane	1.00		0.35	1.00		0.41	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	171	722	373	92	730	374	612	697	617	553	689	584
V/C Ratio(X)	0.50	0.67	0.68	0.77	0.47	0.48	0.16	0.15	0.17	0.13	0.13	0.14
Avail Cap(c_a), veh/h	430	1346	696	302	1500	768	722	697	617	651	689	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	32.0	32.1	41.4	30.4	30.5	15.8	18.5	18.5	15.8	18.5	18.6
Incr Delay (d2), s/veh	2.2	1.1	2.2	12.4	0.5	1.0	0.1	0.5	0.6	0.1	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.8	5.1	1.8	3.2	3.4	1.2	1.5	1.5	0.9	1.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	33.1	34.3	53.8	30.8	31.4	15.9	18.9	19.1	15.9	18.9	19.1
LnGrp LOS	D	C	C	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		826			596			306			243	
Approach Delay, s/veh		34.5			33.8			18.1			18.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	40.0	11.6	25.8	11.5	39.6	11.4	26.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	9.0	33.0	15.0	35.0	10.0	32.0	11.0	39.0
Max Q Clear Time (g_c+I1), s	4.1	5.7	5.5	13.8	4.9	5.0	4.1	10.1
Green Ext Time (p_c), s	0.0	1.2	0.1	5.0	0.1	0.7	0.1	3.6

Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	32	54	107	135	16
Future Vol, veh/h	9	32	54	107	135	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	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	35	59	116	147	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	381	147	164	0	-	0
Stage 1	147	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	621	900	1414	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	595	900	1414	-	-	-
Mov Cap-2 Maneuver	595	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	805	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	2.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1414	-	595	900	-	-
HCM Lane V/C Ratio	0.042	-	0.016	0.039	-	-
HCM Control Delay (s)	7.7	-	11.2	9.2	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.1	-	-