



Transportation Impact Analysis
for:

Circle K Fuel Station Project In the Town of Yucca Valley

September 2025

Kimley»»Horn

TRANSPORTATION IMPACT ANALYSIS
FOR THE PROPOSED
CIRCLE **K** FUEL STATION PROJECT
IN THE TOWN OF YUCCA VALLEY

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TRANSPORTATION IMPACT ANALYSIS
FOR THE PROPOSED
CIRCLE K FUEL STATION PROJECT
IN THE TOWN OF YUCCA VALLEY

INTRODUCTION

Purpose and Study Objectives

This Transportation Impact Analysis has been prepared to address the traffic-related effects of the proposed Circle K Fuel Station project in the Town of Yucca Valley in San Bernardino County. This analysis has been conducted in accordance with the San Bernardino County *Transportation Impact Study Guidelines* (July 2019).

This report includes a description of existing traffic conditions in the surrounding area, estimated project trip generation and distribution, future traffic growth, and an assessment of project-related effects on the transportation system.

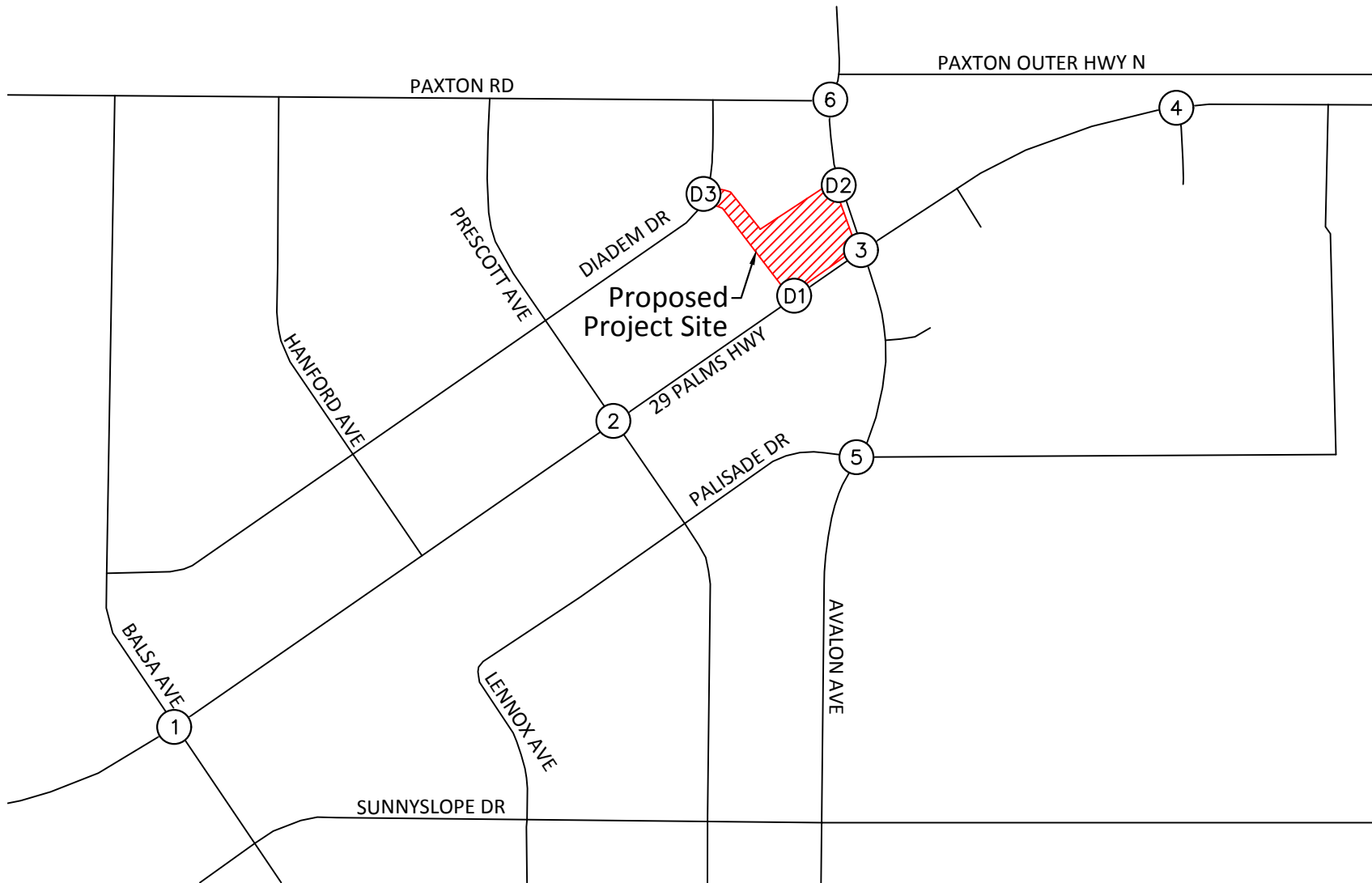
Project Overview

The applicant proposes to construct a new fuel station with 14 fueling positions and a 5,200 square-foot convenience store on the northwest corner of the Avalon Avenue and 29 Palms Highway intersection. The proposed project site is currently vacant and is bounded by vacant land to the north, 29 Palms Highway to the south, Avalon Avenue to the east and Diadem Drive to the west. The project, in its local setting, is shown on Figure 1. The project site plan is shown on Figure 2. The project is anticipated to open in 2026.

Proposed project ingress and egress will be facilitated via two proposed full movement driveways on Avalon Avenue and Diadem Drive and one proposed right-in, right-out driveway on 29 Palms Highway.



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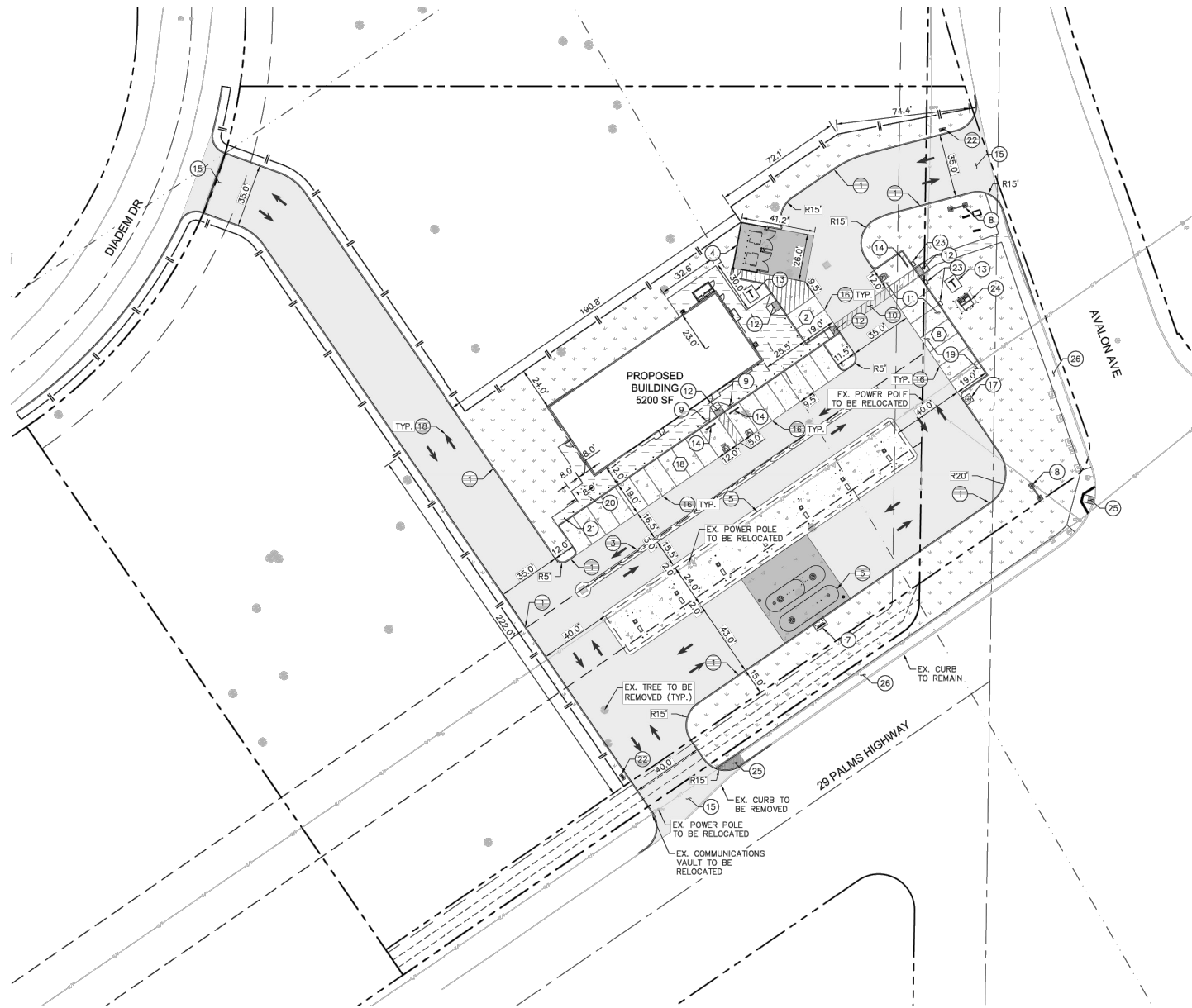


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**FIGURE 1
VICINITY MAP**



NOT TO SCALE



**FIGURE 2
PROJECT SITE PLAN**

ANALYSIS SCENARIOS AND METHODOLOGY

The analysis scenarios and methodology were established with Town of Yucca Valley staff through the Scoping Agreement process. A copy of the approved Traffic Impact Analysis Scoping Agreement with the revised scope is provided in *Appendix A*.

Analysis Scenarios

Based on the San Bernardino County *Transportation Impact Study Guidelines* (July 2019), the study intersections will be evaluated in the morning and evening peak hours on a typical weekday for the following conditions:

- Existing Conditions
- Opening Year 2026
- Opening Year 2026 Plus Project

Intersection Analysis – HCM Methodology

Peak hour intersection operations at the study intersections and driveways were evaluated using the methods prescribed in the Highway Capacity Manual 7th Edition (HCM), consistent with San Bernardino County guidelines. The intersection analysis was conducted using Synchro 12 software.

For signalized intersections, the HCM methodology estimates the average delay (in average seconds per vehicle) for each of the movements through the intersection, considering a number of factors, including the number of lanes, volume of traffic, and the signal timing phasing.

For unsignalized intersections, the HCM methodology analysis determines the worst-case delay per lane for each vehicle making any movement from the stop-controlled minor street, as well as left turns from the major street. Delay values are calculated based on the relationship between traffic on the major street and the availability of acceptable gaps in the traffic stream through which conflicting traffic movements can be made.

The HCM delay forecast translates to a Level of Service designation, ranging from LOS A to LOS F. A summary of each Level of Service and the corresponding delay is provided in the following chart.

LEVEL OF SERVICE DEFINITIONS	
Level of Service	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
D	This level encompasses a zone of increasing restriction, approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS		
Level of Service	Signalized Intersection (Average delay per vehicle, in seconds) ¹	Unsignalized Intersections (Average delay per vehicle, in seconds) ²
A	≤ 10	0 – 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

¹ Source: Highway Capacity Manual (HCM 7th Edition), Exhibit 19-8.

² Source: Highway Capacity Manual (HCM 7th Edition), Exhibit 20-2.

Level of Service Standards

The County of San Bernardino General Plan standard in the Desert Region for level of service for signalized and unsignalized intersections is LOS C.

Thresholds of Significance

The Town of Yucca Valley is located in the East Desert Region of San Bernardino County. The County requires that improvements shall be identified when any of the following occurs between the "without project" and the "plus project" conditions:

- Any signalized study intersection in the Desert region that is operating at an LOS C or better without project traffic in which the addition of project traffic causes the intersection to degrade to an LOS D, E, or F shall identify improvements to improve operations to LOS C.
- Any signalized study intersection in the Desert region that is operating at LOS D, E, or F without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.

For unsignalized intersections, an operational improvement achieving LOS C or better or to pre-project LOS would be required if the analysis determines that either section a) or both sections b) and c) occur:

- a) The addition of project-related traffic causes the intersection to degrade from an LOS D or better to a LOS E or worse in the Valley and Mountain regions or from an LOS C or better to an LOS D or worse in the Desert region.

OR

- b) The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at an LOS E or F in the Valley and Mountain regions or at an LOS D, E, or F in the Desert region (per Section 10.5.2 b).

AND

- c) One or both of the following conditions are met:
 - 1) The project adds ten (10) or more trips to any minor street approach
 - 2) The intersection meets the peak hour traffic signal warrant after the addition of project traffic (per Section 10.5.2 c).

STUDY AREA

This Transportation Impact Analysis includes documentation of existing conditions, future conditions, and identification of project-related deficiencies at the following study locations:

Existing Intersections

1. Balsa Avenue at 29 Palms Highway (SR-62)
2. Prescott Avenue at 29 Palms Highway (SR-62)
3. Avalon Avenue at 29 Palms Highway (SR-62)
4. Walmart Driveway at 29 Palms Highway (SR-62)
5. Palisade Drive at Avalon Avenue
6. Paxton Road at Avalon Avenue

Future Project Driveways

- D1. Driveway 1 at 29 Palms Highway (SR-62)
- D2. Driveway 2 at Avalon Avenue
- D3. Driveway 3 at Diadem Drive

The study locations were established in consultation with Town of Yucca Valley staff through the Scoping Agreement process.

AREA CONDITIONS

Existing Street System

Regional access to the site is provided primarily by the Twentynine Palms Freeway (SR-62).

Existing lane configurations and intersection controls at the study intersections are shown on Figure 3. A copy of the Town of Yucca Valley *Roadway Classifications at General Plan Buildout* is provided on Figure 4. The following provides a description of the roadways surrounding the project site.

Twentynine Palms Highway (SR-62) is an east-west roadway with two travel lanes in each direction. The posted speed limit is 50 miles per hour (mph). On-street parking is prohibited on both sides of the street and there are no bike lanes in either direction. Twentynine Palms Highway is classified as a Highway in the Town of Yucca Valley *Roadway Classifications at General Plan Buildout*.

Avalon Avenue is a north-west roadway with one travel lane in each direction. The posted speed limit is 45 mph. On-street parking is prohibited on both sides of the street and there are no bike lanes in either direction. Avalon Avenue is classified as an Arterial in the Town of Yucca Valley *Roadway Classifications at General Plan Buildout*.

Palisade Drive is an east-west roadway with one lane in each direction. There is on-street parking on both sides of the street and there are no bike lanes in either direction.

Balsa Avenue is a north-west roadway with two travel lanes in each direction. The posted speed limit is 35 mph. On-street parking is prohibited on both sides of the street and there are no bike lanes in either direction. Balsa Avenue is classified as an Arterial in the Town of Yucca Valley *Roadway Classifications at General Plan Buildout*.

Paxton Road is an east-west roadway with one lane in each direction. The posted speed limit is 40 mph. There is on-street parking on both sides of the street and there are no bike lanes in either direction. Paxton Road is classified as an Arterial in the Town of Yucca Valley *Roadway Classifications at General Plan Buildout*.

Diadem Drive is a north-south roadway with one lane in each direction. There is on-street parking on both sides of the street and there are no bike lanes in either direction.

Existing Traffic Volumes

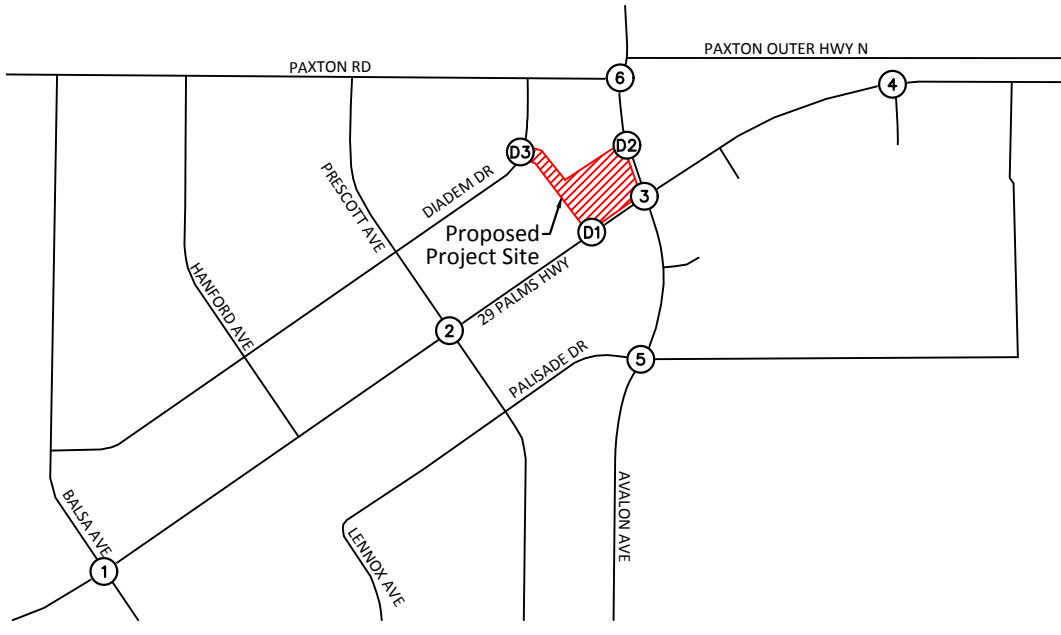
Existing morning peak hour and evening peak hour counts were conducted at the study intersections on a typical weekday. The counts were completed in August 2025, while schools were in session. Peak hour intersection traffic count worksheets are provided in *Appendix B*. Existing morning and evening peak hour volumes are presented on Figure 5.

Intersection Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours using the analysis procedures and assumptions described previously in this report. The results of the intersection analysis for Existing Conditions are shown on Table 1. Copies of Existing Conditions intersection analysis worksheets are provided in *Appendix C*. Review of this table shows that all study intersections currently operate at an acceptable Level of Service during the morning and evening peak hours.



NOT TO SCALE



1. Balsa Avenue at 29 Palms Highway (SR-62)	2. Prescott Avenue at 29 Palms Highway (SR-62)	3. Avalon Avenue at 29 Palms Highway (SR-62)	4. Walmart Driveway at 29 Palms Highway (SR-62)
5. Palisade Drive at Avalon Avenue	6. Paxton Road at Avalon Avenue	D1. Driveway 1 at 29 Palms Highway (SR-62)	D2. Driveway 2 at Avalon Avenue
		FUTURE INTERSECTION	FUTURE INTERSECTION
D3. Driveway 3 at Diadem Drive	FUTURE INTERSECTION		

**FIGURE 3
EXISTING LANE CONFIGURATION
AND TRAFFIC CONTROL**

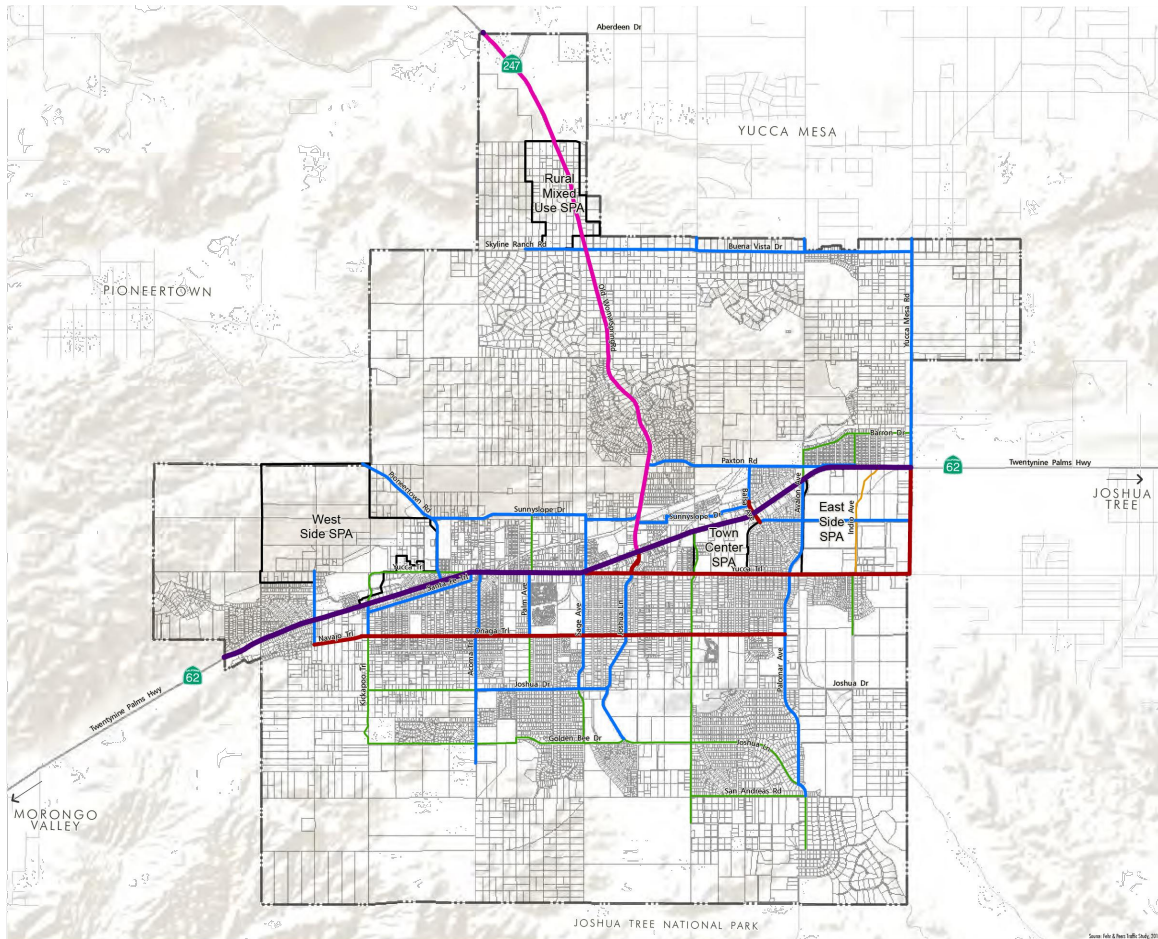
LEGEND:

- = Study Intersection
- = Turn or Through Lane
- = Signal
- = Stop Sign
- D** = De Facto Right-Turn
- OVL** = Right-Turn Overlap





NOT TO SCALE



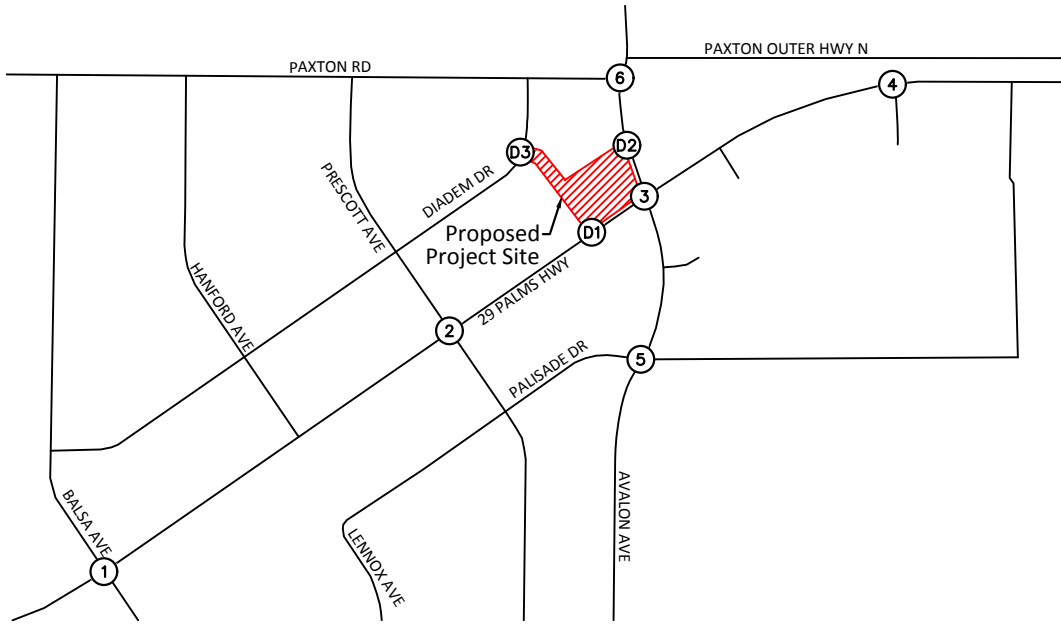
ROADWAY CLASSIFICATIONS

- Highway – 6 Lanes Divided – 134'
- Highway – 4 Lanes Divided – 92'
- Arterial – 4 Lanes Divided – 100'
- Arterial – 2 Lanes – 70'
- Industrial – 2 Lanes with Striped Median – 70'
- Collector – 2 Lanes – 66'
- SPA - Special Policy Area
- Town Limits

**FIGURE 4
TOWN OF YUCCA VALLEY GENERAL PLAN
ROADWAY CLASSIFICATION MAP**



NOT TO SCALE



1. Balsa Avenue at 29 Palms Highway (SR-62)	2. Prescott Avenue at 29 Palms Highway (SR-62)	3. Avalon Avenue at 29 Palms Highway (SR-62)	4. Walmart Driveway at 29 Palms Highway (SR-62)
5. Palisade Drive at Avalon Avenue	6. Paxton Road at Avalon Avenue	D1. Driveway 1 at 29 Palms Highway (SR-62)	D2. Driveway 2 at Avalon Avenue
		FUTURE INTERSECTION	FUTURE INTERSECTION
D3. Driveway 3 at Diadem Drive			
FUTURE INTERSECTION			

**FIGURE 5
EXISTING YEAR (2025)
TRAFFIC VOLUMES**

LEGEND:

(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes



TABLE 1
SUMMARY OF INTERSECTION OPERATION
EXISTING CONDITIONS

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Balsa Avenue at 29 Palms Highway (SR-62)	S	26.0	C	29.7	C
2	Prescott Avenue at 29 Palms Highway (SR-62)	U	22.4	C	27.0	D
3	Avalon Avenue at 29 Palms Highway (SR-62)	S	22.2	C	22.7	C
4	Walmart Driveway at 29 Palms Highway (SR-62)	S	16.0	B	16.8	B
5	Palisades Drive at Avalon Avenue	U	9.3	A	9.9	A
6	Paxton Road at Avalon Avenue	U	9.7	A	10.8	B
D1	Driveway 1 at 29 Palms Highway (SR-62)	U	Future Intersection			
D2	Driveway 2 at Avalon Avenue	U	Future Intersection			
D3	Driveway 3 at Diadem Drive	U	Future Intersection			

Notes:

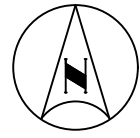
- Intersection operation is expressed in average delay for signalized and unsignalized intersections.
- Delay values for unsignalized intersections represent the average vehicle delay on the stop-controlled/worst (highest delay) intersection approach.
- S = Signalized
- U = Unsignalized

OPENING YEAR 2026 CONDITIONS

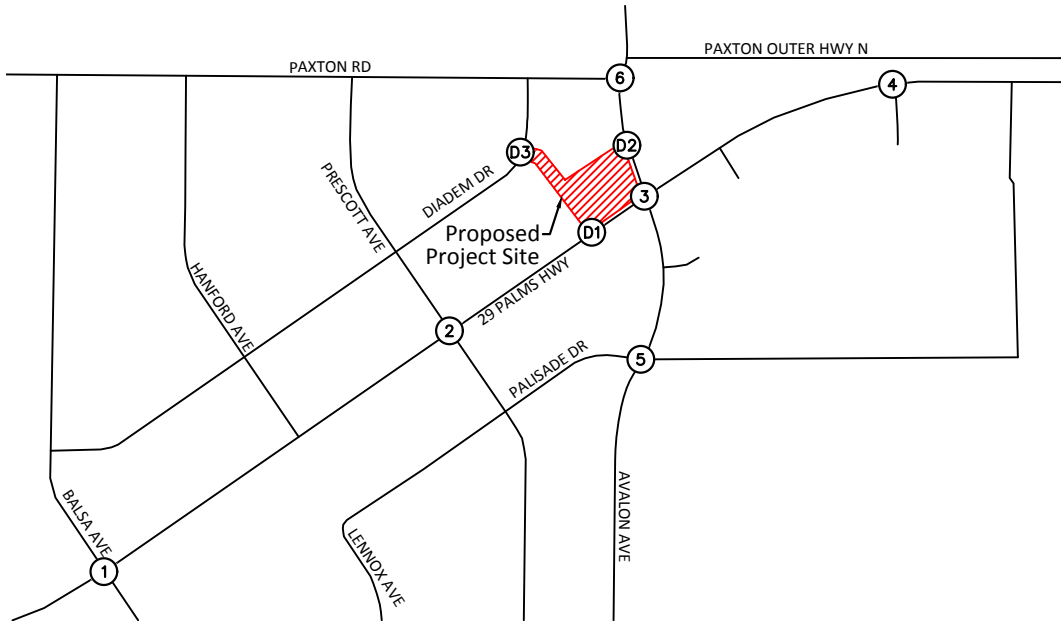
The Project Opening Year (the year the project would be constructed and occupied) is anticipated to be Year 2026. Based on consultation with City staff, an ambient growth rate of 2.0% per year to Opening Year 2026 was applied to existing traffic volumes. The resulting peak hour turning movement volumes at the study locations are shown in Figure 6.

Intersection Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours for the Opening Year 2026 conditions. The results are shown on Table 2. Intersection analysis worksheets are provided in *Appendix C*. Review of this table indicates that, with the addition of ambient growth, all intersections would continue to operate at an acceptable Level of Service under Opening Year 2026 conditions.



NOT TO SCALE



1. Balsa Avenue at 29 Palms Highway (SR-62)	2. Prescott Avenue at 29 Palms Highway (SR-62)	3. Avalon Avenue at 29 Palms Highway (SR-62)	4. Walmart Driveway at 29 Palms Highway (SR-62)
5. Palisade Drive at Avalon Avenue	6. Paxton Road at Avalon Avenue	D1. Driveway 1 at 29 Palms Highway (SR-62)	D2. Driveway 2 at Avalon Avenue
		FUTURE INTERSECTION	FUTURE INTERSECTION
D3. Driveway 3 at Diadem Drive			
FUTURE INTERSECTION			

**FIGURE 6
OPENING YEAR (2026)
TRAFFIC VOLUMES**

LEGEND:

(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes



TABLE 2
SUMMARY OF INTERSECTION OPERATION
OPENING YEAR 2026 CONDITIONS

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Balsa Avenue at 29 Palms Highway (SR-62)	S	25.9	C	29.0	C
2	Prescott Avenue at 29 Palms Highway (SR-62)	U	20.4	C	27.8	D
3	Avalon Avenue at 29 Palms Highway (SR-62)	S	21.5	C	21.8	C
4	Walmart Driveway at 29 Palms Highway (SR-62)	S	16.2	B	16.6	B
5	Palisades Drive at Avalon Avenue	U	8.8	A	9.4	A
6	Paxton Road at Avalon Avenue	U	9.2	A	10.0	B
D1	Driveway 1 at 29 Palms Highway (SR-62)	U	Future Intersection			
D2	Driveway 2 at Avalon Avenue	U	Future Intersection			
D3	Driveway 3 at Diadem Drive	U	Future Intersection			

Notes:

- Intersection operation is expressed in average delay for signalized and unsignalized intersections.
- Delay values for unsignalized intersections represent the average vehicle delay on the stop-controlled/worst (highest delay) intersection approach.
- S = Signalized
- U = Unsignalized

PROJECT TRAFFIC

Project Trip Generation

Peak hour trips for the proposed project were calculated using the trip generation rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (2021). Trip rates are based on the following ITE Land Use Category:

- LU 945 – Convenience Store/Gasoline Station

It is recognized that not all inbound and outbound trips to the proposed project will be “new” trips on the roadway system in the vicinity of the project site. Some trips to the project site will consist of “pass-by” trips -- motorists who are already traveling on the surrounding roadways from one place to another. Common pass-by trips for a gas station would be individuals who stop at the project site on the way to work, home, shopping, or school.

Based on the latest version of the ITE Trip Generation Manual 11th Edition (2021), a pass-by rate of 76% in the morning peak hour and 75% in the evening peak hour were applied to the trips for the proposed land use. As the ITE Trip Generation Manual does not provide pass-by rates for daily trips, the daily pass-by trip percentage was assumed to be the average of the morning and evening peak periods (75.5%).

The project is estimated to generate approximately 882 trips daily, with 90 trips in the morning peak hour (45 inbound, 45 outbound) and 80 trips in the evening peak hour (40 inbound, 40 outbound). The resulting trip rates and the project trip generation estimates are shown on Table 3.

Trip Distribution and Assignment

Project trip distribution assumptions for the project site were developed taking into account the proposed site uses, existing travel patterns, and routes to and from the freeway system. Trip distribution assumptions are shown on Figure 7.

Based on the proposed project trip distribution, project trips were assigned through the study intersections. Figure 8 shows new project trips that would be added to the study intersections. However, these trips do not include pass-by trips, which would typically be added to project driveways but not to non-adjacent study intersections; pass-by trips are assumed to be part of the existing flow of traffic until reaching the project site. Pass-by trips are shown on Figure 9 and should be added to the volumes shown on Figure 8 to determine the total project trips at each study intersection. The total project trips are shown on Figure 10.

TABLE 4
SUMMARY OF PROJECT TRIP GENERATION
CIRCLE K FUEL STATION - TOWN OF YUCCA VALLEY

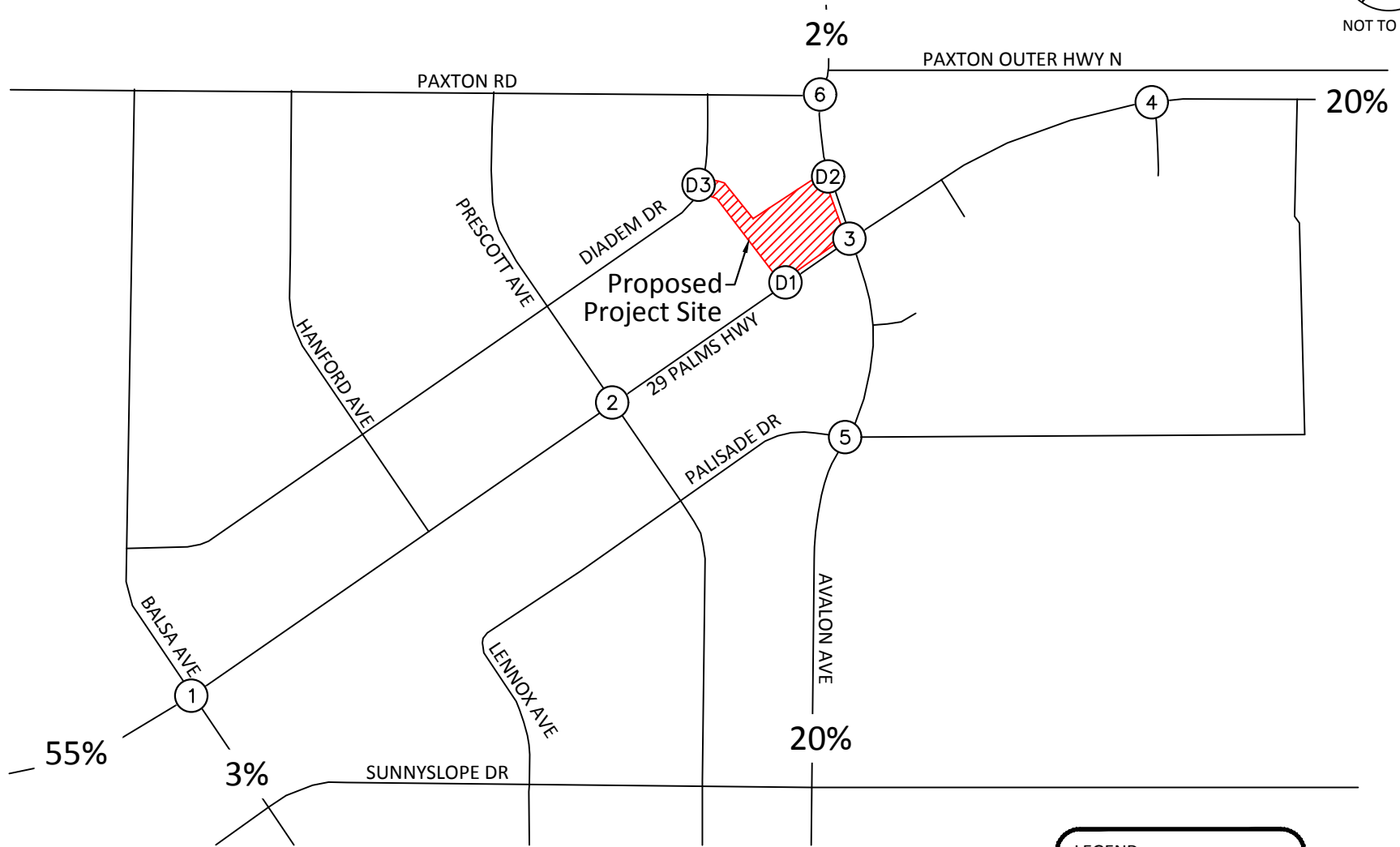
Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Convenience Store/Gasoline Station - GFA (4k-5.5k)	945	Fueling Position	257.13	13.52	13.52	27.04	11.38	11.38	22.76
Land Use	Quantity	Unit	Trip Generation Estimates						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Convenience Store/Gasoline Station - GFA (4k-5.5k)	14	Fueling Position	3,600	189	189	378	159	159	318
<i>Pass-by Trips (75.5% Daily, 76% AM, 75% PM) ^{1,2}</i>			-2,718	-144	-144	-288	-119	-119	-238
<i>Net Trips</i>			882	45	45	90	40	40	80
Total Project Trips			882	45	45	90	40	40	80

¹ Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition


² Note: The Trip Generation Manual does not provide pass-by rates for daily trip generation. The daily pass-by trip percentage shown is the average of the AM and the PM pass-by trip percentages.



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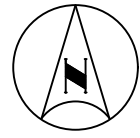


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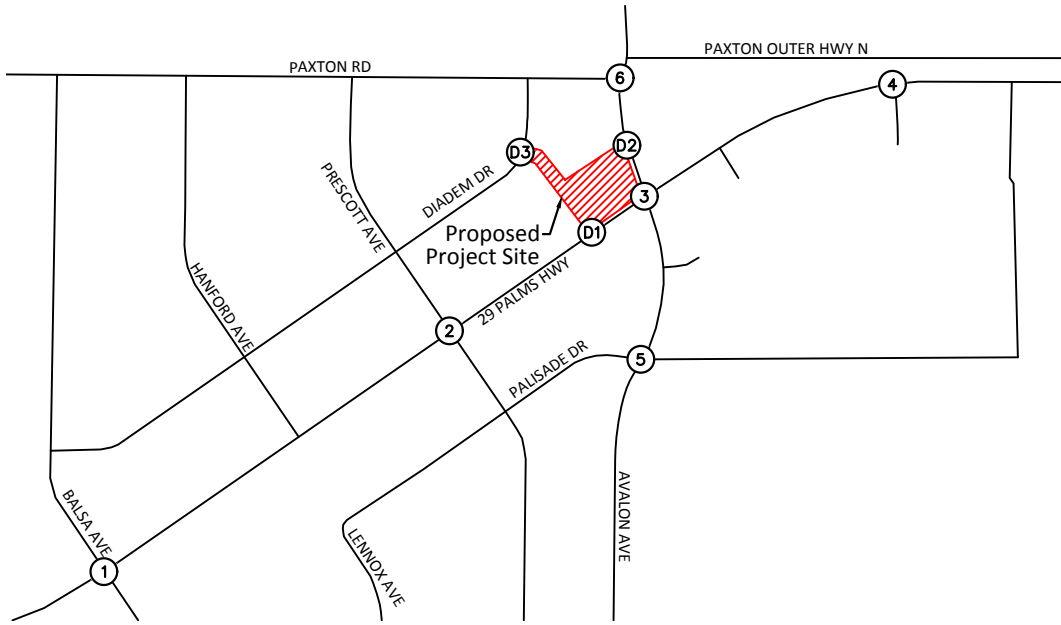
-  = Study Intersection
- XXX%** = Trip Distribution Percentage

**FIGURE 7
PROJECT TRIP DISTRIBUTION**





NOT TO SCALE



1. Balsa Avenue at 29 Palms Highway (SR-62)	2. Prescott Avenue at 29 Palms Highway (SR-62)	3. Avalon Avenue at 29 Palms Highway (SR-62)	4. Walmart Driveway at 29 Palms Highway (SR-62)
5. Palisade Drive at Avalon Avenue	6. Paxton Road at Avalon Avenue	D1. Driveway 1 at 29 Palms Highway (SR-62)	D2. Driveway 2 at Avalon Avenue
D3. Driveway 3 at Diadem Drive			

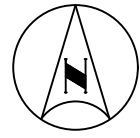
**FIGURE 8
PROJECT-RELATED
TRAFFIC VOLUMES**

LEGEND:

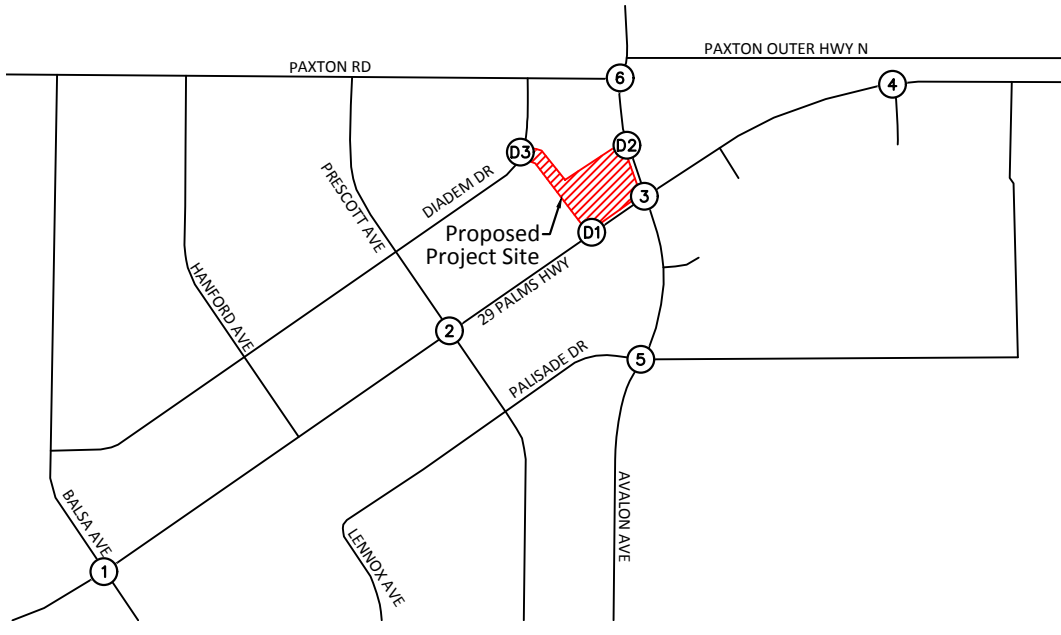
(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes





NOT TO SCALE



1. Balsa Avenue at 29 Palms Highway (SR-62)	2. Prescott Avenue at 29 Palms Highway (SR-62)	3. Avalon Avenue at 29 Palms Highway (SR-62)	4. Walmart Driveway at 29 Palms Highway (SR-62)
		<p>86(71) ← 86(71) → 86(71)</p>	
5. Palisade Drive at Avalon Avenue	6. Paxton Road at Avalon Avenue	D1. Driveway 1 at 29 Palms Highway (SR-62)	D2. Driveway 2 at Avalon Avenue
		<p>58(48) ← 58(48) → 58(48) ← 58(-48) →</p>	<p>86(71) → 86(71)</p>
D3. Driveway 3 at Diadem Drive			

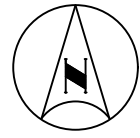
**FIGURE 9
PASS-BY TRAFFIC
VOLUMES**

LEGEND:

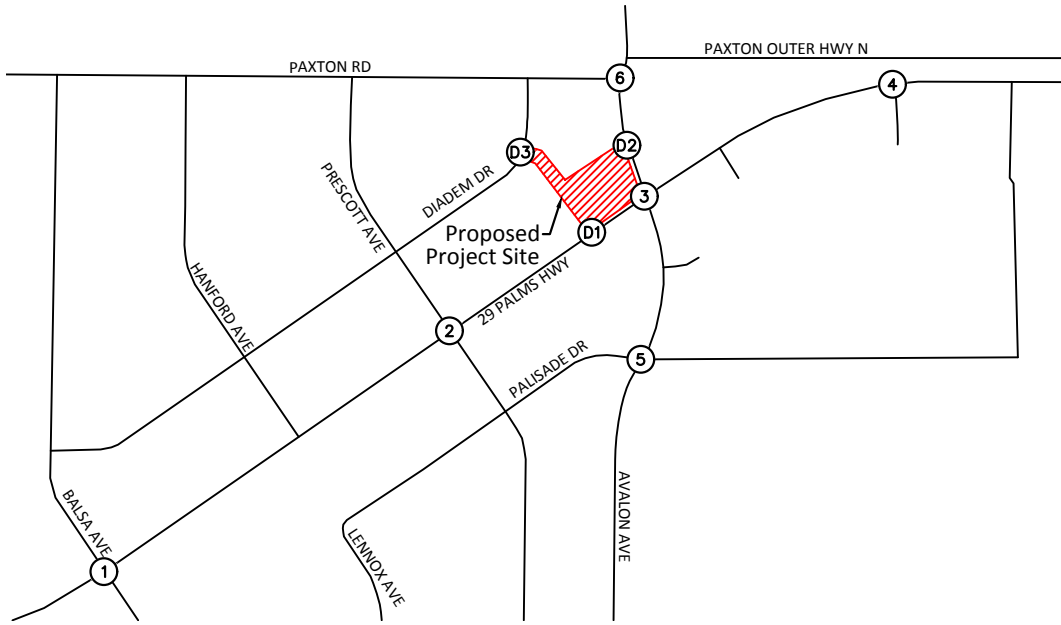
(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes





NOT TO SCALE



1. Balsa Avenue at 29 Palms Highway (SR-62)	2. Prescott Avenue at 29 Palms Highway (SR-62)	3. Avalon Avenue at 29 Palms Highway (SR-62)	4. Walmart Driveway at 29 Palms Highway (SR-62)
5. Palisade Drive at Avalon Avenue	6. Paxton Road at Avalon Avenue	D1. Driveway 1 at 29 Palms Highway (SR-62)	D2. Driveway 2 at Avalon Avenue
D3. Driveway 3 at Diadem Drive			

**FIGURE 10
TOTAL PROJECT
TRAFFIC VOLUMES**

LEGEND:

(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes



OPENING YEAR 2026 PLUS PROJECT CONDITIONS

Project-related traffic was added to the Opening Year 2026 traffic volumes, and the resulting morning and evening peak hour volumes are presented on Figure 11.

Intersection Operating Conditions

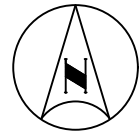
Intersection Level of Service analysis was conducted for the morning and evening peak hours for the Opening Year 2026 With Project conditions. The results of the intersection analysis are shown on Table 4. Copies of intersection analysis worksheets for this scenario are provided in *Appendix C*. Review of this Table indicates that, with the addition of project traffic, all intersections would continue to operate at an acceptable Level of Service under Opening Year 2026 Plus Project conditions.

TABLE 4
SUMMARY OF INTERSECTION OPERATION
OPENING YEAR 2026 PLUS PROJECT CONDITIONS

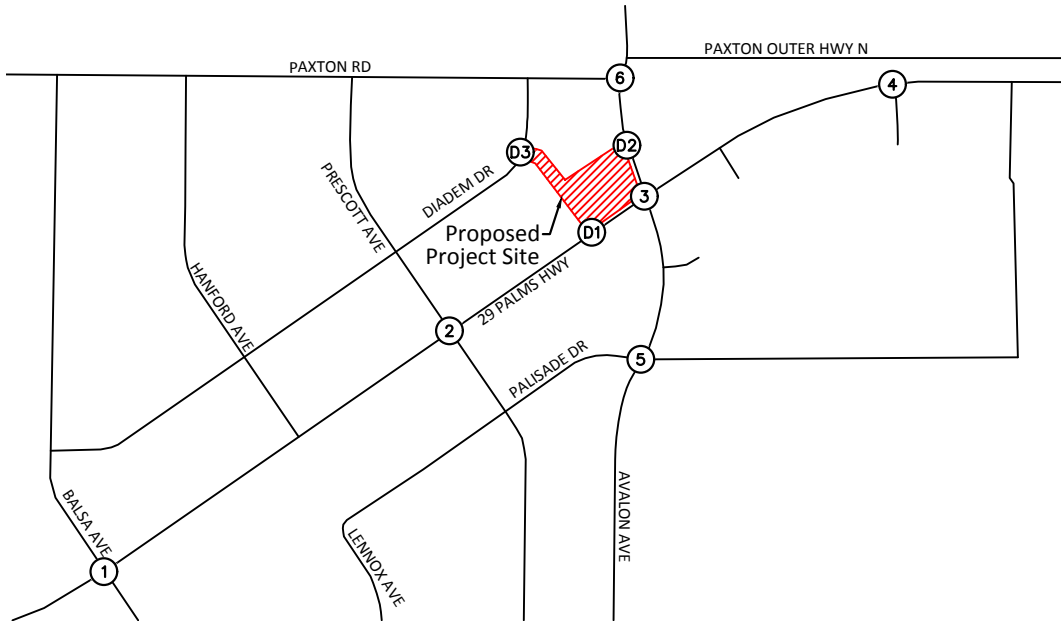
Int. #	Intersection	Traffic Control	AM Peak Hour						PM Peak Hour					
			Without Project		With Project		Change in Delay	Mitigation Req?	Without Project		With Project		Change in Delay	Mitigation Req?
			Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	Balsa Avenue at 29 Palms Highway (SR-62)	S	25.9	C	26.4	C	0.5	No	29.0	C	29.5	C	0.5	No
2	Prescott Avenue at 29 Palms Highway (SR-62)	U	20.4	C	21.6	C	1.2	No	27.8	D	29.4	D	1.6	No
3	Avalon Avenue at 29 Palms Highway (SR-62)	S	21.5	C	27.8	C	6.3	No	21.8	C	28.7	C	6.9	No
4	Walmart Driveway at 29 Palms Highway (SR-62)	S	16.2	B	16.2	B	0.0	No	16.6	B	16.6	B	0.0	No
5	Palisades Drive at Avalon Avenue	U	8.8	A	8.9	A	0.1	No	9.4	A	9.6	A	0.2	No
6	Paxton Road at Avalon Avenue	U	9.2	A	9.3	A	0.0	No	10.0	B	10.0	B	0.0	No
D1	Driveway 1 at 29 Palms Highway (SR-62)	U	-	-	11.5	B	-	-	-	-	13.0	B	-	-
D2	Driveway 2 at Avalon Avenue	U	-	-	9.1	A	-	-	-	-	9.0	A	-	-
D3	Driveway 3 at Diadem Drive	U	-	-	8.5	A	-	-	-	-	8.5	A	-	-

Notes:

- Intersection operation is expressed in average delay for signalized and unsignalized intersections.
- Delay values for unsignalized intersections represent the average vehicle delay on the stop-controlled/worst (highest delay) intersection approach.
- S = Signalized
- U = Unsignalized



NOT TO SCALE



1. Balsa Avenue at 29 Palms Highway (SR-62)	2. Prescott Avenue at 29 Palms Highway (SR-62)	3. Avalon Avenue at 29 Palms Highway (SR-62)	4. Walmart Driveway at 29 Palms Highway (SR-62)
5. Palisade Drive at Avalon Avenue	6. Paxton Road at Avalon Avenue	D1. Driveway 1 at 29 Palms Highway (SR-62)	D2. Driveway 2 at Avalon Avenue
D3. Driveway 3 at Diadem Drive			

**FIGURE 11
OPENING YEAR 2026 PLUS PROJECT
TRAFFIC VOLUMES**

LEGEND:

(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes



RECOMMENDED IMPROVEMENTS

Based on the Level of Service standards and significant impact criteria discussed previously, the project-related effect would not be considered significant; therefore, no improvements are identified.

SITE ACCESS ANALYSIS

Proposed project ingress and egress will be facilitated via two proposed full movement driveways on Avalon Avenue and Diadem Drive and one proposed right-in, right-out driveway on 29 Palms Highway.

VEHICLE MILES TRAVELED ANALYSIS

With the passage of Senate Bill (SB) 743 by the California Legislature in September 2013, VMT has become an important indicator for determining if a new development will result in a “significant transportation impact” as required by the California Environmental Quality Act (CEQA). Under SB 743, the state Office of Planning and Research (OPR) was charged with developing new guidelines for evaluating transportation impacts under CEQA in order to replace methods measuring automobile delay and Level of Service. In response to this mandate, the Office of Planning and Research proposed, and the California Natural Resources Agency adopted CEQA Guidelines Section 15064.3, which indicates that VMT exceeding an applicable threshold of significance is the most appropriate measure for evaluating a project’s transportation impacts. Section 15064.3 goes on to clarify that except for projects regarding roadway capacity, “...a project’s effect on automobile delay does not constitute a significant environmental impact.” The OPR further elaborates on VMT metrics within the *Technical Advisory on Evaluating Transportation Impacts in CEQA* document, published in December 2018. Subsequently, the San Bernardino County, via the *San Bernardino County Transportation Impact Study Guidelines (July 2019)* has established VMT screening thresholds of significance for projects within the City.

The County’s VMT guidelines provide details on appropriate screening thresholds that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed analysis. The County’s screening criteria are as follows:

1. Projects which serve the local community and have the potential to reduce VMT
2. Projects generating less than 110 daily vehicle trips
3. Projects located within a Transit Priority Area (TPA)
4. Projects located within a low VMT generating area

Projects which serve the local community and have the potential to reduce VMT would be considered to have a less-than-significant impact. Since the project is a fuel station under 50,000 square feet, the project would screen out of VMT under qualifying local-serving criteria.

In accordance with the Technical Advisory and with San Bernardino County, it is appropriate that the

proposed project be presumed to result in a less-than-significant VMT impact and support the goals of SB 743. Therefore, the Project screens out and no further VMT analysis is required.

SUMMARY OF FINDINGS AND CONCLUSIONS

- The applicant proposes to construct a new fuel station with 14 fueling positions and a 5,200 square-foot convenience store on the northwest corner of the Avalon Avenue and 29 Palms Highway intersection.
- The proposed project site is currently vacant and is bounded by vacant land to the north, 29 Palms Highway to the south, Avlon Avenue to the east and Diadem Drive to the west.
- Project ingress and egress will be facilitated via two proposed full movement driveways on Avalon Avenue and Diadem Drive and one proposed right-in, right-out driveway on 29 Palms Highway.
- Morning and evening peak hour operating conditions were evaluated at the study intersections for the following study scenarios:
 - Existing Conditions
 - Opening Year 2026
 - Opening Year 2026 Plus Project
- Existing peak hour traffic counts were collected in August 2025.
- Under Existing Conditions, all study intersections currently operate at an acceptable LOS.
- Under Opening Year 2026 Conditions, all study intersections would continue to operate at an acceptable LOS.
- The project is estimated to generate approximately 882 trips daily, with 90 trips in the morning peak hour (45 inbound, 45 outbound) and 80 trips in the evening peak hour (40 inbound, 40 outbound).
- Under Opening Year 2026 Plus Project Conditions, all study intersections would continue to operate at an acceptable LOS.
- Based on the Level of Service standards and significant impact criteria, the project-related effect would not be considered significant; therefore, no improvements were identified.
- Per the County of San Bernardino's VMT guidelines, the proposed project meets the local-serving land use VMT screening criteria. Therefore, the Project screens out and no further VMT analysis is required.

APPENDIX A

APPROVED SCOPING AGREEMENT



Town of Yucca Valley
Traffic Scope Approval Form

To be Completed by applicant consultant and approved by Public Works prior to start of study.

Project Circle K Fuel Station
Name: Project Circle K Fuel Station - Town of Yucca Valley
Address: Project NWC 29 Palms Hwy & Avalon Ave, Yucca Valley, CA 92284
Description: Circle K Fuel Station with 14 fueling positions and convenience store (5,200 S.F.)
Developer's Name: Circle K Stores, Inc.
Developer's Address: 255 E Rincon Street, Suite 100, Corona, CA 92879
Telephone No 760-519-1948 Email address: MUNDO.CASTREJON@CIRCLEK.COM

Trip Generation Rates from ITE Latest Edition

Land Use (1) Convenience Store/Gasoline Station
Development Sq Ft 5,200
ITE Land Use Code 945 - GFA (4k - 5.5k)
Daily Trips 3,600
AM Peak Hour Trips
Inbound 189
Outbound 189
Total 378
PM Peak Hour Trips
Inbound 159
Outbound 159
Total 318

Land Use (2) _____
Development Sq Ft _____
ITE Land Use Code _____
Daily Trips _____
AM Peak Hour Trips
Inbound _____
Outbound _____
Total _____
PM Peak Hour Trips
Inbound _____
Outbound _____
Total _____

(Use Additional Sheet(s), if Necessary)

Pass-by Trips (%), if applicable: 75.5% Daily, 76% AM, 75% PM

Land Use (1) Convenience Store/Gasoline Station
ITE Land Use Code 945 - GFA (4k - 5.5k)
Daily Trips 882
AM Peak Hour Trips
Inbound 45
Outbound 45
Total 90
PM Peak Hour Trips
Inbound 40
Outbound 40
Total 80

Land Use (2) _____
ITE Land Use Code _____
Daily Trips _____
AM Peak Hour Trips
Inbound _____
Outbound _____
Total _____
PM Peak Hour Trips
Inbound _____
Outbound _____
Total _____

Project Opening Year: 2026

Build-out Year: None

- Study Intersections: 1 Balsa Avenue at 29 Palms Highway (SR-62)
2 Prescott Avenue at 29 Palms Highway (SR-62)
3 Avalon Avenue at 29 Palms Highway (SR-62)
4 Walmart Driveway at 29 Palms Highway (SR-62)
5 Palisades Drive at Avalon Ave

- 6 Driveway 1 at 29 Palms Highway (SR-62)
7 Driveway 2 at Avalon Avenue
8 Driveway 3 at Diadem Drive
9 _____
10 _____

(Use Additional Sheet(s) and Maps to show project Boundaries & Attach memo for project Description)

add Paxton Rd & Avalon Ave to TIA. This would be intersection #6.



Town of Yucca Valley
Traffic Scope Approval Form

To be Completed by applicant consultant and approved by Public Works prior to start of study.

Study Roadway Segments: 1 _____ 2 _____
3 _____ 4 _____
5 _____ 6 _____

Proposed Development Use: Residential Commercial Mixed-Use Other

Software Methodology: Synchro HCS

Additional Issues to be considered: Traffic Calming Measures Queuing Analysis

Bike/Ped Accommodations Merge Analysis Gap Analysis

Actuation/Coordination Safety Analysis Sight Distance Analysis

Is the project screened from VMT assessment? Yes No

VMT Screening Justification This project is local-serving retail less than 50,000 sq. ft., therefore it is not
required to complete VMT assessment according to San Bernardino County Transportation Impact Study Guidelines
Section 4.1.

Ambient Growth Rate: 2 %


Trip Distribution: East 20 % West 58 % North 2 % South 20 % (See Figure 3)

Consultant Preparer's Name: Ryan Calad

Address: 1100 Town and Country Road Suite 700, Orange, CA 92868

Telephone No. 657-291-8815 PE / TE License # 91422

Email Address: Ryan.Calad@kimley-horn.com

Signature:  Date: 06/23/2025

Approved By (Public Works Department)

Signature: _____ Date: _____

Name: _____ Title: _____



June 23, 2025

Alex Qishta, P.E.
Public Works Director
Town of Yucca Valley
58928 Business Center Drive
Yucca Valley, CA 92284

RE: *Traffic Impact Analysis (TIA) Scoping Agreement for the Proposed Circle K Fuel Station at 29 Palms Highway and Avalon Avenue in the Town of Yucca Valley*

Kimley-Horn and Associates, Inc. is pleased to submit this Scoping Agreement for the proposed Circle K Fuel Station at 29 Palms Highway and Avalon Avenue in the Town of Yucca Valley. The scope of the Traffic Impact Analysis is summarized below. This scoping agreement is based on a review of the San Bernardino County *Transportation Impact Study Guidelines* (July 2019).

Project Description

The applicant proposes to construct a new fuel station with 14 fueling positions and a 5,200 square-foot convenience store on the northwest corner of the Avalon Avenue and 29 Palms Highway intersection. The proposed project site is currently vacant. The project, in its local setting, is shown on **Figure 1**. The project site plan is shown on **Figure 2**. The project is anticipated to open in 2026.

Project ingress and egress will be facilitated via two proposed full movement driveways on Avalon Avenue and Diadem Drive and one proposed right-in, right-out driveway on 29 Palms Highway.

Study Scenarios

The following study scenarios will be included for analysis:

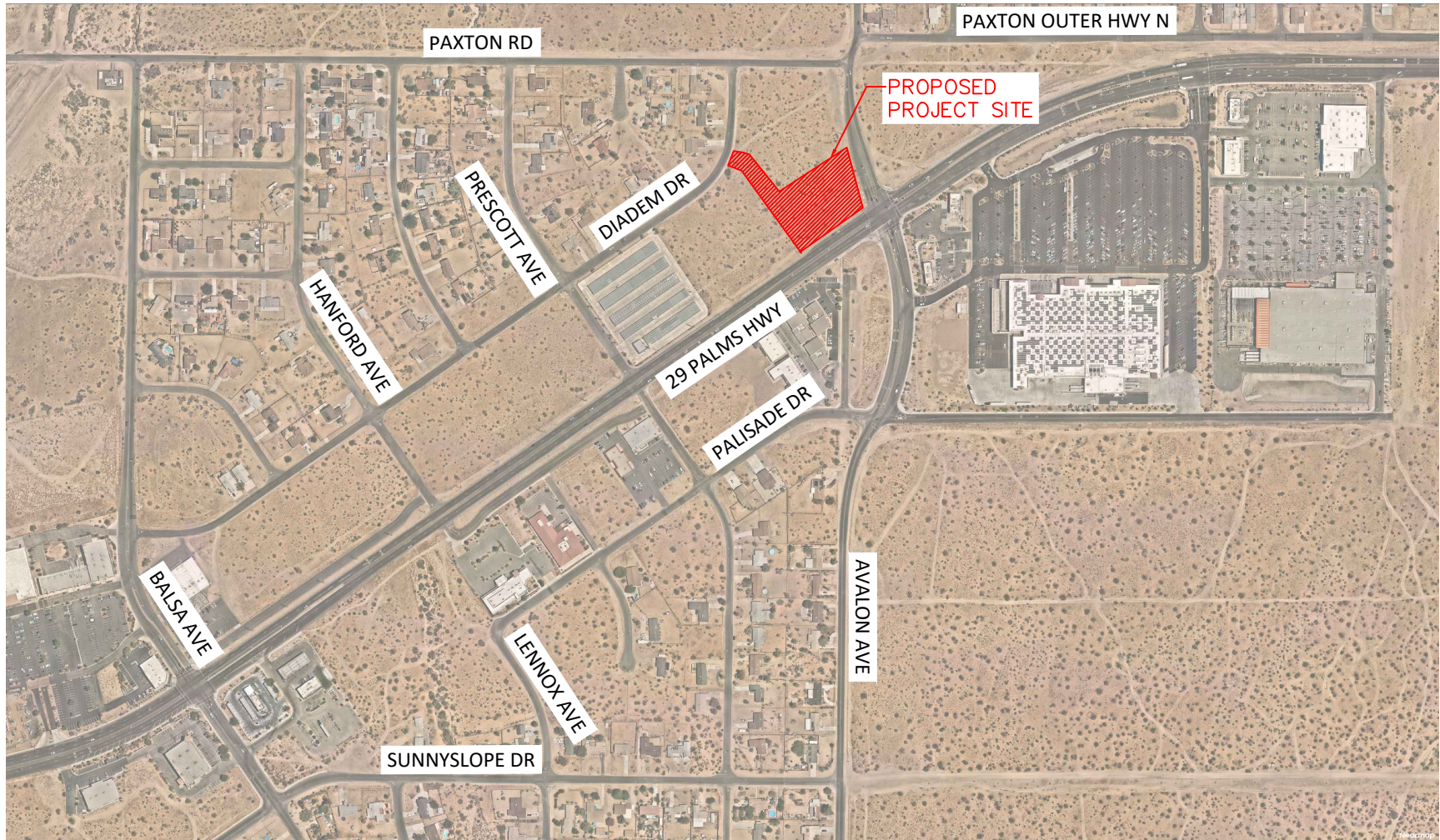
- Existing
- Opening Year 2026
- Opening Year 2026 with Project

Traffic Growth

Opening Year 2026 base traffic, without the addition of the proposed project traffic, will be determined by growing existing volumes by 2% per year, and by adding traffic from cumulative projects in the town to the study intersections. A list of cumulative projects, and their associated traffic, will be provided by the Town.

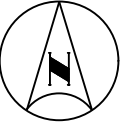


NOT TO SCALE

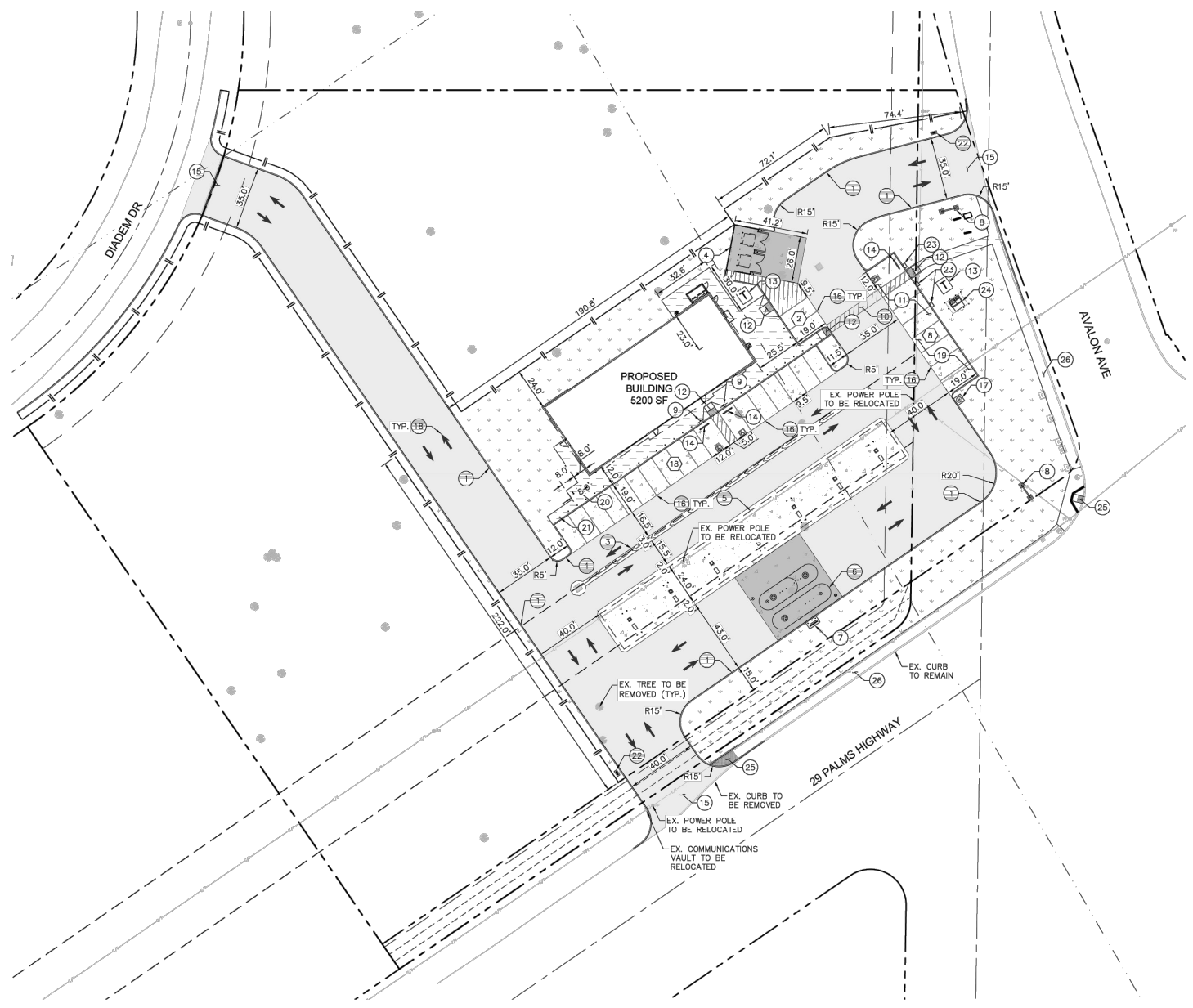


- 2 -

**FIGURE 1
VICINITY MAP**



NOT TO SCALE



**FIGURE 2
PROJECT SITE PLAN**



Study Methodology

Intersection Level of Service calculations will be based on the Highway Capacity Manual (6th Edition) and will be conducted using the Synchro 12 software. Intersection analysis parameters will be based on the assumptions and values presented in the San Bernardino County Transportation Impact Study Guidelines.

Project Trip Generation

Peak hour trips for the proposed project were calculated using the trip generation rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (2021). Trip rates are based on the following ITE Land Use Category:

- LU 945 –Convenience Store/Gasoline Station

It is recognized that not all inbound and outbound trips to the proposed project will be “new” trips on the roadway system in the vicinity of the project site. Some trips to the project site will consist of “pass-by” trips -- motorists who are already traveling on the surrounding roadways from one place to another. Common pass-by trips for a gas station would be individuals who stop at the project site on the way to work, home, shopping, or school.

Based on the latest version of the ITE Trip Generation Manual 11th Edition (2021), a pass-by rate of 76% in the morning peak hour and 75% in the evening peak hour were applied to the trips for the proposed land use. As the ITE Trip Generation Manual does not provide pass-by rates for daily trips, the daily pass-by trip percentage was assumed to be the average of the morning and evening peak periods (75.5%).

The resulting trip rates and the project trip generation estimates are shown on **Table 1**. The project is estimated to generate approximately 882 trips daily, with 90 trips in the morning peak hour (45 inbound, 45 outbound) and 80 trips in the evening peak hour (40 inbound, 40 outbound).

Study Intersections

The following study intersections are proposed, and are shown on **Figure 3**:

1. Balsa Avenue at 29 Palms Highway (SR-62)
2. Prescott Avenue at 29 Palms Highway (SR-62)
3. Avalon Avenue at 29 Palms Highway (SR-62)
4. Walmart Driveway at 29 Palms Highway (SR-62)
5. Palisades Drive at Avalon Ave
- ~~D1. Driveway 1 at 29 Palms Highway (SR-62)~~ add Paxton Rd & Avalon Ave to TIA. This would be intersection #6.
- D2. Driveway 2 at Avalon Avenue
- D3. Driveway 3 at Diadem Drive

**TABLE 1
SUMMARY OF PROJECT TRIP GENERATION
CIRCLE K FUEL STATION - TOWN OF YUCCA VALLEY**

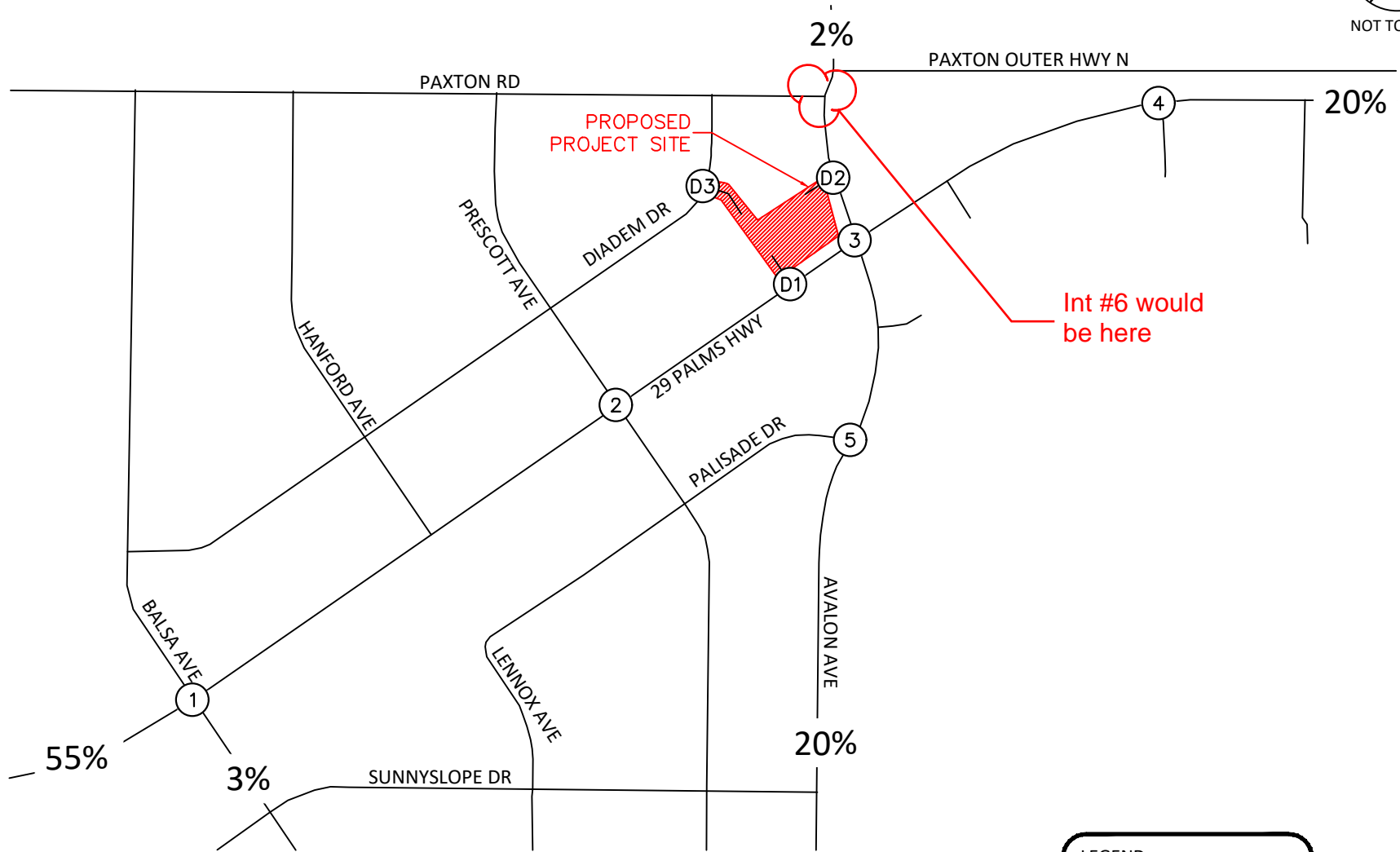
Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Convenience Store/Gasoline Station - GFA (4k-5.5k)	945	Fueling Position	257.13	13.52	13.52	27.04	11.38	11.38	22.76
Trip Generation Estimates									
Land Use	Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
				Convenience Store/Gasoline Station - GFA (4k-5.5k)	14	Fueling Position	3,600	189	189
<i>Pass-by Trips (75.5% Daily, 76% AM, 75% PM) ^{1,2}</i>			-2,718	-144	-144	-288	-119	-119	-238
Net Trips			882	45	45	90	40	40	80
Total Project Trips			882	45	45	90	40	40	80

¹ Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition

² Note: The Trip Generation Manual does not provide pass-by rates for daily trip generation. The daily pass-by trip percentage shown is the average of the AM and the PM pass-by trip percentages.



NOT TO SCALE



LEGEND:

- (X) = Study Intersection
- XXX = Trip Distribution Percentage

**FIGURE 3
TRIP DISTRIBUTION ASSUMPTIONS
AND STUDY INTERSECTIONS**



Existing Traffic Counts

Existing traffic volumes will be collected and analyzed for each of the study intersections during weekday morning (7am-9am) and evening (4pm-6pm) peak hours.

Project Trip Distribution

Project trip distribution assumptions are shown on **Figure 3**.

On-Site Queueing and Circulation

Project traffic will be analyzed for on-site circulation as well as fuel station queueing to determine if project traffic impacts any access points during peak study periods.

VMT Screening

With the passage of Senate Bill (SB) 743 by the California Legislature in September 2013, VMT has become an important indicator for determining if a new development will result in a “significant transportation impact” as required by the California Environmental Quality Act (CEQA). Under SB 743, the state Office of Planning and Research (OPR) was charged with developing new guidelines for evaluating transportation impacts under CEQA in order to replace methods measuring automobile delay and Level of Service. In response to this mandate, the Office of Planning and Research proposed, and the California Natural Resources Agency adopted CEQA Guidelines Section 15064.3, which indicates that VMT exceeding an applicable threshold of significance is the most appropriate measure for evaluating a project’s transportation impacts. Section 15064.3 goes on to clarify that except for projects regarding roadway capacity, “...a project’s effect on automobile delay does not constitute a significant environmental impact.” The OPR further elaborates on VMT metrics within the *Technical Advisory on Evaluating Transportation Impacts in CEQA* document, published in December 2018. Subsequently, the San Bernardino County, via the *San Bernardino County Transportation Impact Study Guidelines (July 2019)* has established VMT screening thresholds of significance for projects within the City.

The County’s VMT guidelines provide details on appropriate screening thresholds that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed analysis. The County’s screening criteria are as follows:

1. Projects which serve the local community and have the potential to reduce VMT
2. Projects generating less than 110 daily vehicle trips
3. Projects located within a Transit Priority Area (TPA)
4. Projects located within a low VMT generating area

Projects which serve the local community and have the potential to reduce VMT would be considered to have a less-than-significant impact. Since the project is a fuel station under 50,000 square feet, the project would screen out of VMT under qualifying local-serving criteria.

In accordance with the Technical Advisory and with San Bernardino County, it is appropriate that the proposed project be presumed to result in a less-than-significant VMT impact and support the goals of SB 743. No further VMT assessment is anticipated.

APPROVED:

By:

Alex Qishta, P.E.
Public Works Director - Town of Yucca Valley

APPENDIX B

TRAFFIC COUNT DATA SHEETS

City of Yucca Valley
 N/S: Balsa Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 01_YCV_Balsa_29P AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Balsa Avenue Southbound				Twentynine Palms Highway Westbound				Balsa Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	9	1	2	12	7	99	5	111	16	7	2	25	3	131	4	138	286
07:15 AM	7	6	4	17	8	125	6	139	16	3	0	19	3	120	3	126	301
07:30 AM	7	1	5	13	5	113	4	122	7	0	1	8	1	138	3	142	285
07:45 AM	10	0	5	15	10	143	4	157	13	5	2	20	1	118	1	120	312
Total	33	8	16	57	30	480	19	529	52	15	5	72	8	507	11	526	1184
08:00 AM	4	4	7	15	4	124	3	131	11	2	2	15	1	149	5	155	316
08:15 AM	11	4	5	20	10	125	4	139	10	1	3	14	2	129	3	134	307
08:30 AM	10	5	3	18	8	166	5	179	14	13	5	32	2	132	7	141	370
08:45 AM	8	7	6	21	8	178	6	192	17	7	1	25	3	131	12	146	384
Total	33	20	21	74	30	593	18	641	52	23	11	86	8	541	27	576	1377
Grand Total	66	28	37	131	60	1073	37	1170	104	38	16	158	16	1048	38	1102	2561
Apprch %	50.4	21.4	28.2		5.1	91.7	3.2		65.8	24.1	10.1		1.5	95.1	3.4		
Total %	2.6	1.1	1.4	5.1	2.3	41.9	1.4	45.7	4.1	1.5	0.6	6.2	0.6	40.9	1.5	43	

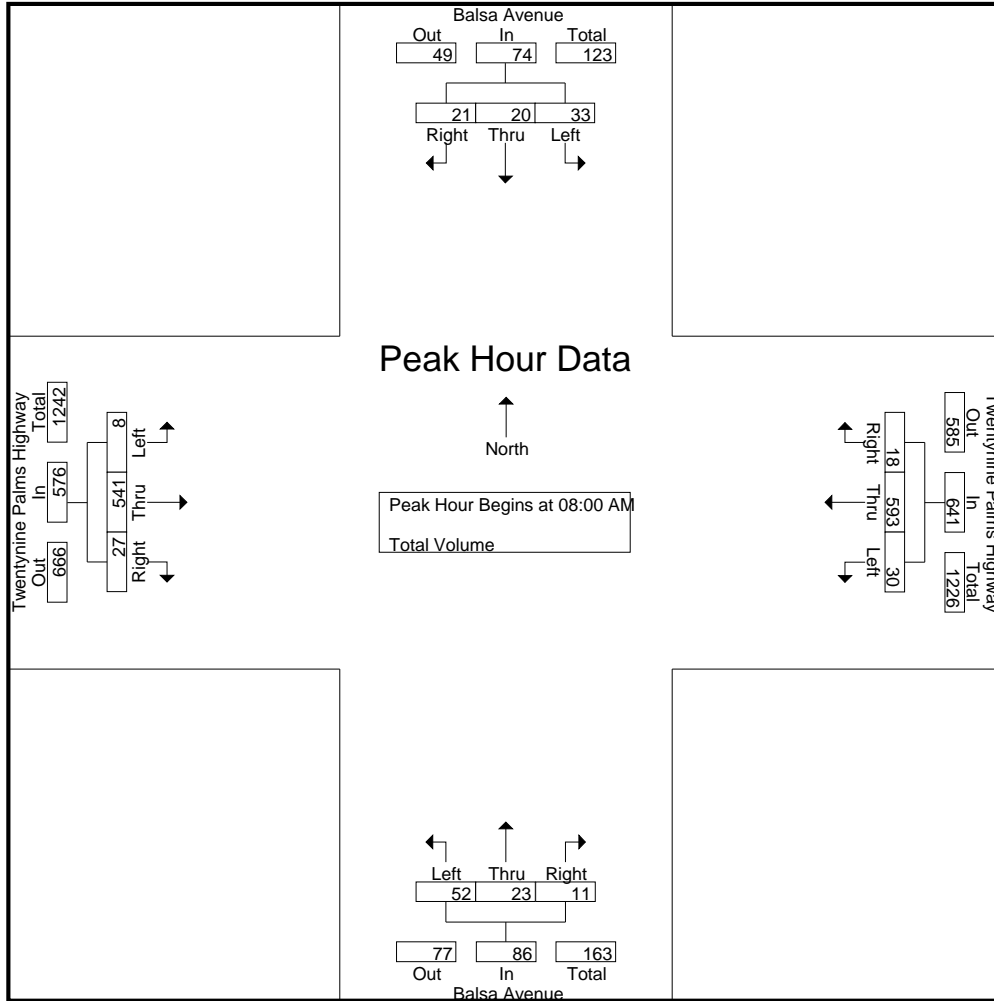
Start Time	Balsa Avenue Southbound				Twentynine Palms Highway Westbound				Balsa Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00 AM	4	4	7	15	4	124	3	131	11	2	2	15	1	149	5	155	316
08:15 AM	11	4	5	20	10	125	4	139	10	1	3	14	2	129	3	134	307
08:30 AM	10	5	3	18	8	166	5	179	14	13	5	32	2	132	7	141	370
08:45 AM	8	7	6	21	8	178	6	192	17	7	1	25	3	131	12	146	384
Total Volume	33	20	21	74	30	593	18	641	52	23	11	86	8	541	27	576	1377
% App. Total	44.6	27	28.4		4.7	92.5	2.8		60.5	26.7	12.8		1.4	93.9	4.7		
PHF	.750	.714	.750	.881	.750	.833	.750	.835	.765	.442	.550	.672	.667	.908	.563	.929	.896

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

City of Yucca Valley
 N/S: Balsa Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 01_YCV_Balsa_29P AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	4	4	7	15	4	124	3	131	11	2	2	15	1	149	5	155
+15 mins.	11	4	5	20	10	125	4	139	10	1	3	14	2	129	3	134
+30 mins.	10	5	3	18	8	166	5	179	14	13	5	32	2	132	7	141
+45 mins.	8	7	6	21	8	178	6	192	17	7	1	25	3	131	12	146
Total Volume	33	20	21	74	30	593	18	641	52	23	11	86	8	541	27	576
% App. Total	44.6	27	28.4		4.7	92.5	2.8		60.5	26.7	12.8		1.4	93.9	4.7	
PHF	.750	.714	.750	.881	.750	.833	.750	.835	.765	.442	.550	.672	.667	.908	.563	.929

City of Yucca Valley
 N/S: Balsa Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 01_YCV_Balsa_29P PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Balsa Avenue Southbound				Twentynine Palms Highway Westbound				Balsa Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	25	18	8	51	9	158	13	180	19	15	9	43	5	167	13	185	459
04:15 PM	17	17	12	46	8	205	9	222	15	13	4	32	6	170	12	188	488
04:30 PM	28	18	3	49	19	202	16	237	18	13	5	36	4	164	11	179	501
04:45 PM	19	15	10	44	10	199	12	221	14	9	15	38	3	183	15	201	504
Total	89	68	33	190	46	764	50	860	66	50	33	149	18	684	51	753	1952
05:00 PM	25	16	8	49	11	197	22	230	18	17	12	47	5	171	14	190	516
05:15 PM	18	13	6	37	12	207	18	237	16	14	6	36	6	181	21	208	518
05:30 PM	10	27	13	50	11	143	7	161	29	16	7	52	7	146	9	162	425
05:45 PM	22	12	5	39	16	139	15	170	16	17	6	39	3	148	8	159	407
Total	75	68	32	175	50	686	62	798	79	64	31	174	21	646	52	719	1866
Grand Total	164	136	65	365	96	1450	112	1658	145	114	64	323	39	1330	103	1472	3818
Apprch %	44.9	37.3	17.8		5.8	87.5	6.8		44.9	35.3	19.8		2.6	90.4	7		
Total %	4.3	3.6	1.7	9.6	2.5	38	2.9	43.4	3.8	3	1.7	8.5	1	34.8	2.7	38.6	

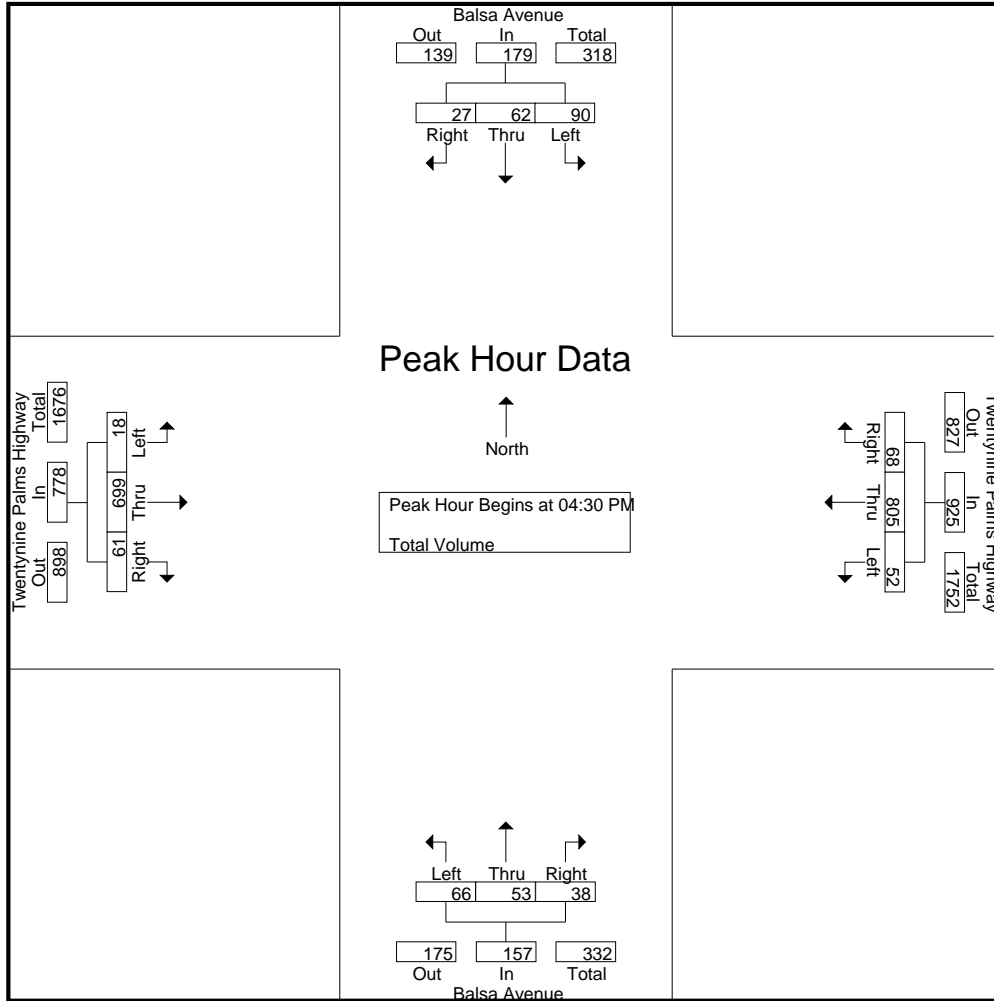
Start Time	Balsa Avenue Southbound				Twentynine Palms Highway Westbound				Balsa Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	28	18	3	49	19	202	16	237	18	13	5	36	4	164	11	179	501
04:45 PM	19	15	10	44	10	199	12	221	14	9	15	38	3	183	15	201	504
05:00 PM	25	16	8	49	11	197	22	230	18	17	12	47	5	171	14	190	516
05:15 PM	18	13	6	37	12	207	18	237	16	14	6	36	6	181	21	208	518
Total Volume	90	62	27	179	52	805	68	925	66	53	38	157	18	699	61	778	2039
% App. Total	50.3	34.6	15.1		5.6	87	7.4		42	33.8	24.2		2.3	89.8	7.8		
PHF	.804	.861	.675	.913	.684	.972	.773	.976	.917	.779	.633	.835	.750	.955	.726	.935	.984

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

City of Yucca Valley
 N/S: Balsa Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 01_YCV_Balsa_29P PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				05:00 PM				04:30 PM			
+0 mins.	25	18	8	51	19	202	16	237	18	17	12	47	4	164	11	179
+15 mins.	17	17	12	46	10	199	12	221	16	14	6	36	3	183	15	201
+30 mins.	28	18	3	49	11	197	22	230	29	16	7	52	5	171	14	190
+45 mins.	19	15	10	44	12	207	18	237	16	17	6	39	6	181	21	208
Total Volume	89	68	33	190	52	805	68	925	79	64	31	174	18	699	61	778
% App. Total	46.8	35.8	17.4		5.6	87	7.4		45.4	36.8	17.8		2.3	89.8	7.8	
PHF	.795	.944	.688	.931	.684	.972	.773	.976	.681	.941	.646	.837	.750	.955	.726	.935

City of Yucca Valley
 N/S: Prescott Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 02_YCV_Pres_29P AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Prescott Avenue Southbound				Twentynine Palms Highway Westbound				Prescott Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	0	0	1	0	114	0	114	1	0	1	2	0	147	1	148	265
07:15 AM	0	0	0	0	2	142	0	144	0	1	0	1	1	120	2	123	268
07:30 AM	0	0	0	0	2	125	0	127	0	0	0	0	0	146	1	147	274
07:45 AM	0	1	0	1	1	158	1	160	1	0	0	1	0	133	5	138	300
Total	1	1	0	2	5	539	1	545	2	1	1	4	1	546	9	556	1107
08:00 AM	1	0	1	2	5	134	0	139	1	0	0	1	0	156	2	158	300
08:15 AM	0	1	1	2	3	132	0	135	2	0	2	4	2	139	2	143	284
08:30 AM	0	0	0	0	1	181	1	183	1	1	0	2	1	144	1	146	331
08:45 AM	0	0	2	2	6	187	1	194	3	0	2	5	0	132	4	136	337
Total	1	1	4	6	15	634	2	651	7	1	4	12	3	571	9	583	1252
Grand Total	2	2	4	8	20	1173	3	1196	9	2	5	16	4	1117	18	1139	2359
Apprch %	25	25	50		1.7	98.1	0.3		56.2	12.5	31.2		0.4	98.1	1.6		
Total %	0.1	0.1	0.2	0.3	0.8	49.7	0.1	50.7	0.4	0.1	0.2	0.7	0.2	47.4	0.8	48.3	

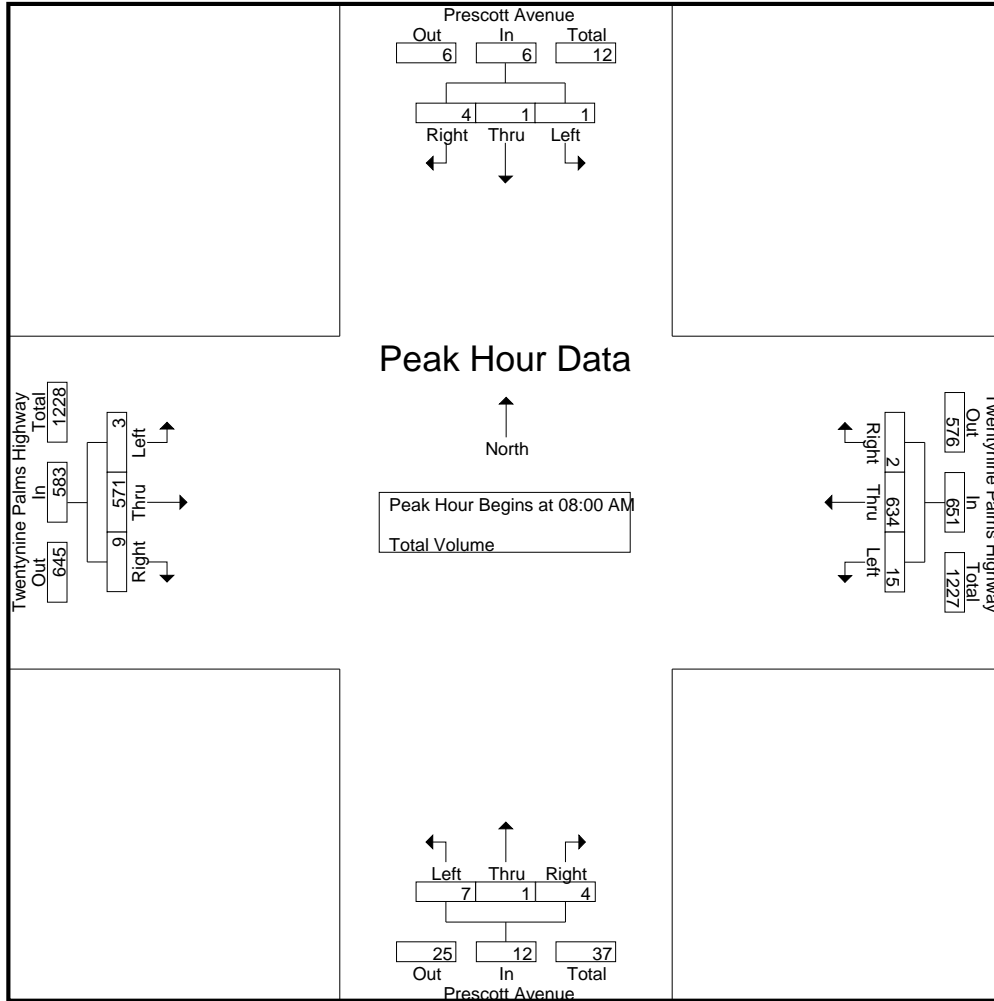
Start Time	Prescott Avenue Southbound				Twentynine Palms Highway Westbound				Prescott Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00 AM	1	0	1	2	5	134	0	139	1	0	0	1	0	156	2	158	300
08:15 AM	0	1	1	2	3	132	0	135	2	0	2	4	2	139	2	143	284
08:30 AM	0	0	0	0	1	181	1	183	1	1	0	2	1	144	1	146	331
08:45 AM	0	0	2	2	6	187	1	194	3	0	2	5	0	132	4	136	337
Total Volume	1	1	4	6	15	634	2	651	7	1	4	12	3	571	9	583	1252
% App. Total	16.7	16.7	66.7		2.3	97.4	0.3		58.3	8.3	33.3		0.5	97.9	1.5		
PHF	.250	.250	.500	.750	.625	.848	.500	.839	.583	.250	.500	.600	.375	.915	.563	.922	.929

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

City of Yucca Valley
 N/S: Prescott Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 02_YCV_Pres_29P AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				07:30 AM			
+0 mins.	1	0	1	2	5	134	0	139	1	0	0	1	0	146	1	147
+15 mins.	0	1	1	2	3	132	0	135	2	0	2	4	0	133	5	138
+30 mins.	0	0	0	0	1	181	1	183	1	1	0	2	0	156	2	158
+45 mins.	0	0	2	2	6	187	1	194	3	0	2	5	2	139	2	143
Total Volume	1	1	4	6	15	634	2	651	7	1	4	12	2	574	10	586
% App. Total	16.7	16.7	66.7		2.3	97.4	0.3		58.3	8.3	33.3		0.3	98	1.7	
PHF	.250	.250	.500	.750	.625	.848	.500	.839	.583	.250	.500	.600	.250	.920	.500	.927

City of Yucca Valley
 N/S: Prescott Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 02_YCV_Pres_29P PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Prescott Avenue Southbound				Twentynine Palms Highway Westbound				Prescott Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	1	1	0	178	1	179	1	1	0	2	3	204	4	211	393
04:15 PM	0	0	1	1	3	216	0	219	1	1	2	4	0	183	3	186	410
04:30 PM	0	0	0	0	1	234	0	235	1	0	2	3	1	201	2	204	442
04:45 PM	0	0	1	1	1	219	1	221	1	0	1	2	3	202	0	205	429
Total	0	0	3	3	5	847	2	854	4	2	5	11	7	790	9	806	1674
05:00 PM	0	0	0	0	0	228	0	228	2	0	2	4	3	214	1	218	450
05:15 PM	0	0	0	0	0	230	0	230	2	0	1	3	3	196	0	199	432
05:30 PM	0	0	0	0	1	172	0	173	0	0	1	1	2	172	0	174	348
05:45 PM	0	0	0	0	1	160	1	162	1	0	1	2	0	174	0	174	338
Total	0	0	0	0	2	790	1	793	5	0	5	10	8	756	1	765	1568
Grand Total	0	0	3	3	7	1637	3	1647	9	2	10	21	15	1546	10	1571	3242
Apprch %	0	0	100		0.4	99.4	0.2		42.9	9.5	47.6		1	98.4	0.6		
Total %	0	0	0.1	0.1	0.2	50.5	0.1	50.8	0.3	0.1	0.3	0.6	0.5	47.7	0.3	48.5	

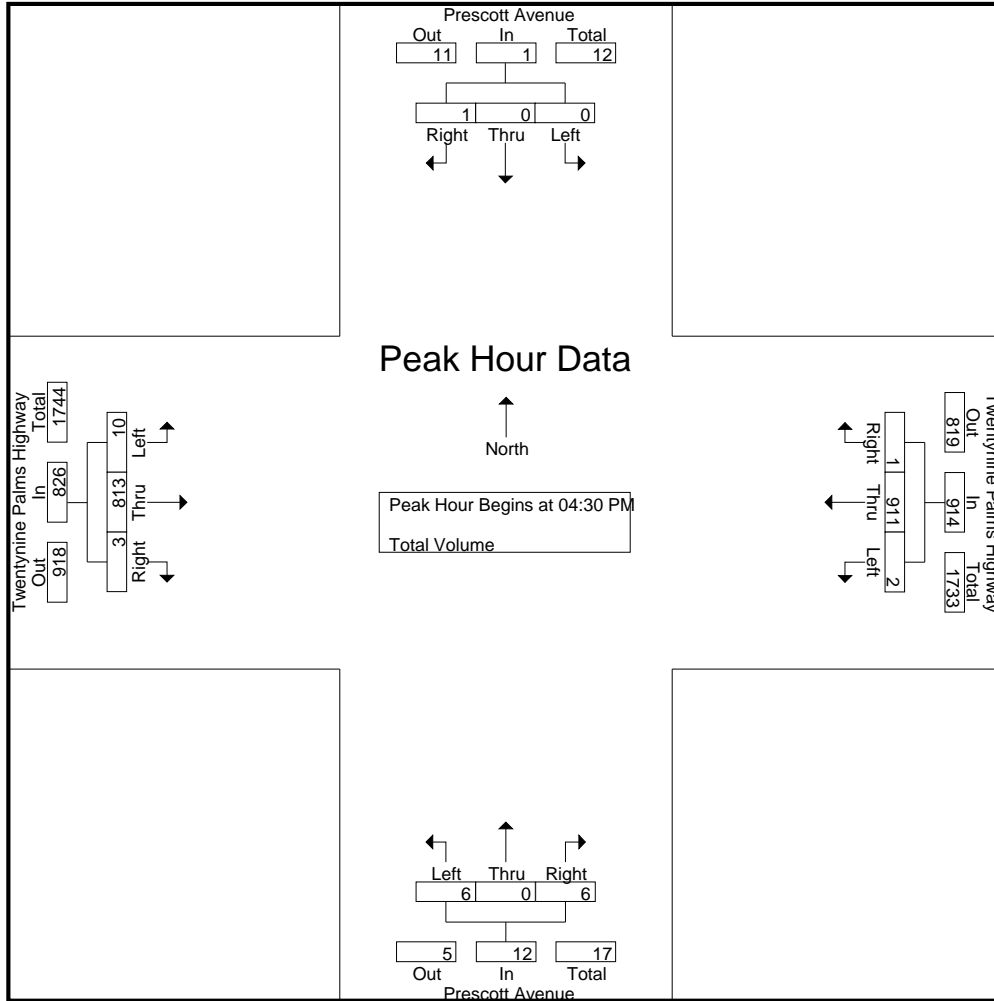
Start Time	Prescott Avenue Southbound				Twentynine Palms Highway Westbound				Prescott Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	0	0	0	0	1	234	0	235	1	0	2	3	1	201	2	204	442
04:45 PM	0	0	1	1	1	219	1	221	1	0	1	2	3	202	0	205	429
05:00 PM	0	0	0	0	0	228	0	228	2	0	2	4	3	214	1	218	450
05:15 PM	0	0	0	0	0	230	0	230	2	0	1	3	3	196	0	199	432
Total Volume	0	0	1	1	2	911	1	914	6	0	6	12	10	813	3	826	1753
% App. Total	0	0	100		0.2	99.7	0.1		50	0	50		1.2	98.4	0.4		
PHF	.000	.000	.250	.250	.500	.973	.250	.972	.750	.000	.750	.750	.833	.950	.375	.947	.974

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

City of Yucca Valley
 N/S: Prescott Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 02_YCV_Pres_29P PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:15 PM				04:30 PM			
+0 mins.	0	0	1	1	1	234	0	235	1	1	2	4	1	201	2	204
+15 mins.	0	0	1	1	1	219	1	221	1	0	2	3	3	202	0	205
+30 mins.	0	0	0	0	0	228	0	228	1	0	1	2	3	214	1	218
+45 mins.	0	0	1	1	0	230	0	230	2	0	2	4	3	196	0	199
Total Volume	0	0	3	3	2	911	1	914	5	1	7	13	10	813	3	826
% App. Total	0	0	100		0.2	99.7	0.1		38.5	7.7	53.8		1.2	98.4	0.4	
PHF	.000	.000	.750	.750	.500	.973	.250	.972	.625	.250	.875	.813	.833	.950	.375	.947

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 03_YCV_Ava_29P AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Avalon Avenue Southbound				Twentynine Palms Highway Westbound				Avalon Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	8	6	3	17	8	106	1	115	6	8	10	24	1	128	11	140	296
07:15 AM	6	2	4	12	4	131	3	138	9	5	7	21	0	121	7	128	299
07:30 AM	14	7	5	26	6	114	3	123	9	4	8	21	0	133	8	141	311
07:45 AM	3	5	3	11	11	154	1	166	10	8	7	25	0	121	16	137	339
Total	31	20	15	66	29	505	8	542	34	25	32	91	1	503	42	546	1245
08:00 AM	3	4	5	12	8	120	1	129	13	3	9	25	3	136	15	154	320
08:15 AM	7	5	5	17	16	120	2	138	5	3	7	15	2	132	11	145	315
08:30 AM	5	10	6	21	15	161	0	176	18	3	17	38	1	131	12	144	379
08:45 AM	2	11	1	14	7	171	4	182	18	10	6	34	4	116	15	135	365
Total	17	30	17	64	46	572	7	625	54	19	39	112	10	515	53	578	1379
Grand Total	48	50	32	130	75	1077	15	1167	88	44	71	203	11	1018	95	1124	2624
Apprch %	36.9	38.5	24.6		6.4	92.3	1.3		43.3	21.7	35		1	90.6	8.5		
Total %	1.8	1.9	1.2	5	2.9	41	0.6	44.5	3.4	1.7	2.7	7.7	0.4	38.8	3.6	42.8	

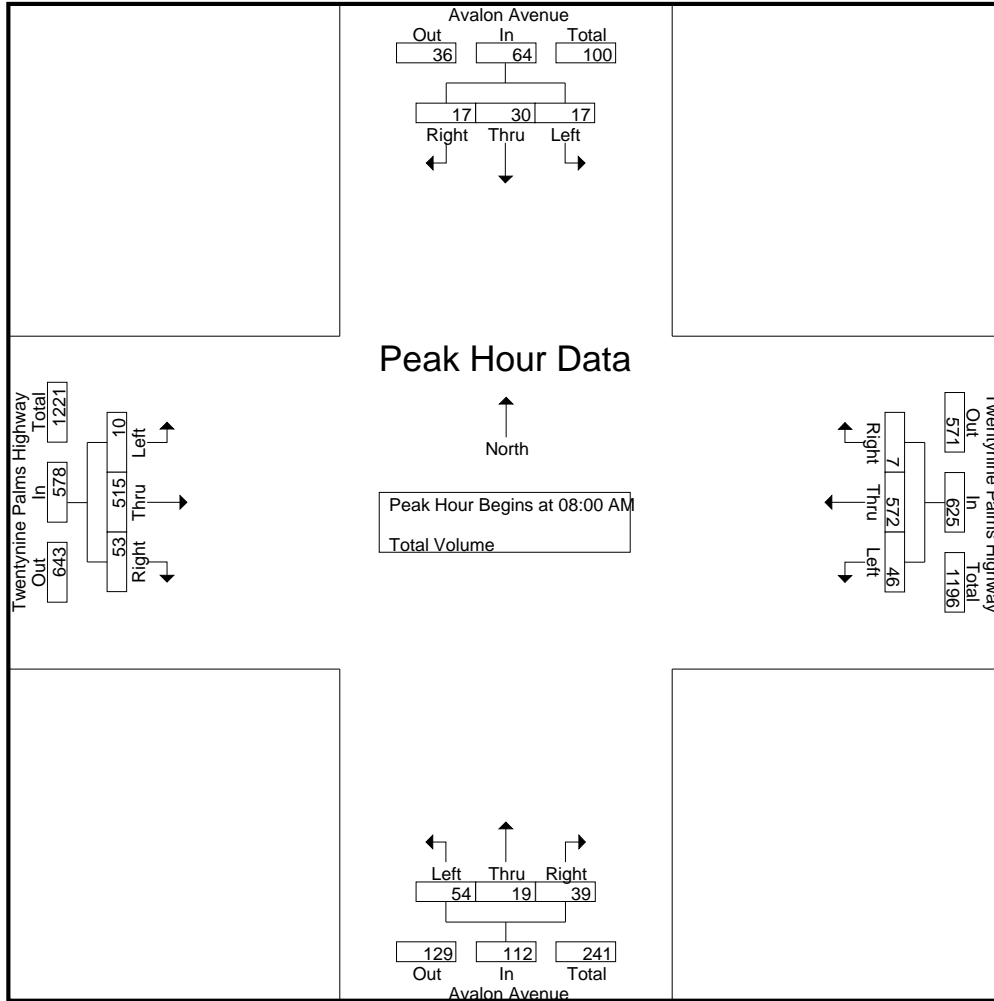
Start Time	Avalon Avenue Southbound				Twentynine Palms Highway Westbound				Avalon Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00 AM	3	4	5	12	8	120	1	129	13	3	9	25	3	136	15	154	320
08:15 AM	7	5	5	17	16	120	2	138	5	3	7	15	2	132	11	145	315
08:30 AM	5	10	6	21	15	161	0	176	18	3	17	38	1	131	12	144	379
08:45 AM	2	11	1	14	7	171	4	182	18	10	6	34	4	116	15	135	365
Total Volume	17	30	17	64	46	572	7	625	54	19	39	112	10	515	53	578	1379
% App. Total	26.6	46.9	26.6		7.4	91.5	1.1		48.2	17	34.8		1.7	89.1	9.2		
PHF	.607	.682	.708	.762	.719	.836	.438	.859	.750	.475	.574	.737	.625	.947	.883	.938	.910

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 03_YCV_Ava_29P AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				08:00 AM				07:45 AM			
+0 mins.	8	6	3	17	8	120	1	129	13	3	9	25	0	121	16	137
+15 mins.	6	2	4	12	16	120	2	138	5	3	7	15	3	136	15	154
+30 mins.	14	7	5	26	15	161	0	176	18	3	17	38	2	132	11	145
+45 mins.	3	5	3	11	7	171	4	182	18	10	6	34	1	131	12	144
Total Volume	31	20	15	66	46	572	7	625	54	19	39	112	6	520	54	580
% App. Total	47	30.3	22.7		7.4	91.5	1.1		48.2	17	34.8		1	89.7	9.3	
PHF	.554	.714	.750	.635	.719	.836	.438	.859	.750	.475	.574	.737	.500	.956	.844	.942

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 03_YCV_Ava_29P PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Avalon Avenue Southbound				Twentynine Palms Highway Westbound				Avalon Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	6	8	0	14	15	152	1	168	34	13	4	51	5	179	28	212	445
04:15 PM	4	11	3	18	11	181	8	200	24	12	6	42	4	140	27	171	431
04:30 PM	2	1	3	6	23	214	15	252	23	9	6	38	3	187	28	218	514
04:45 PM	2	8	6	16	14	175	11	200	27	7	11	45	4	155	24	183	444
Total	14	28	12	54	63	722	35	820	108	41	27	176	16	661	107	784	1834
05:00 PM	4	6	1	11	11	200	10	221	33	13	7	53	13	196	26	235	520
05:15 PM	6	4	6	16	5	186	6	197	29	14	7	50	4	162	24	190	453
05:30 PM	5	6	2	13	11	159	12	182	15	8	11	34	4	166	15	185	414
05:45 PM	8	6	6	20	6	134	9	149	18	11	6	35	1	136	19	156	360
Total	23	22	15	60	33	679	37	749	95	46	31	172	22	660	84	766	1747
Grand Total	37	50	27	114	96	1401	72	1569	203	87	58	348	38	1321	191	1550	3581
Apprch %	32.5	43.9	23.7		6.1	89.3	4.6		58.3	25	16.7		2.5	85.2	12.3		
Total %	1	1.4	0.8	3.2	2.7	39.1	2	43.8	5.7	2.4	1.6	9.7	1.1	36.9	5.3	43.3	

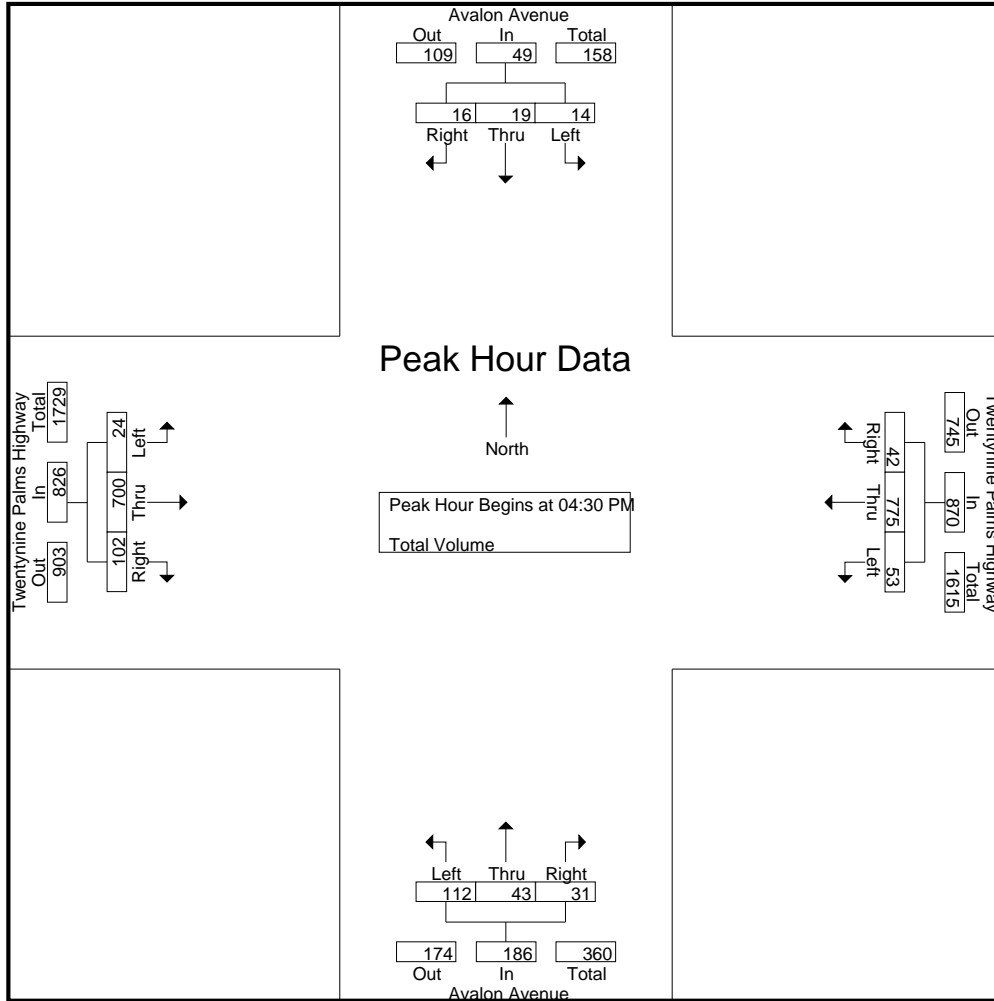
Start Time	Avalon Avenue Southbound				Twentynine Palms Highway Westbound				Avalon Avenue Northbound				Twentynine Palms Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	2	1	3	6	23	214	15	252	23	9	6	38	3	187	28	218	514
04:45 PM	2	8	6	16	14	175	11	200	27	7	11	45	4	155	24	183	444
05:00 PM	4	6	1	11	11	200	10	221	33	13	7	53	13	196	26	235	520
05:15 PM	6	4	6	16	5	186	6	197	29	14	7	50	4	162	24	190	453
Total Volume	14	19	16	49	53	775	42	870	112	43	31	186	24	700	102	826	1931
% App. Total	28.6	38.8	32.7		6.1	89.1	4.8		60.2	23.1	16.7		2.9	84.7	12.3		
PHF	.583	.594	.667	.766	.576	.905	.700	.863	.848	.768	.705	.877	.462	.893	.911	.879	.928

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 03_YCV_Ava_29P PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				04:15 PM				04:30 PM				04:30 PM			
+0 mins.	4	6	1	11	11	181	8	200	23	9	6	38	3	187	28	218
+15 mins.	6	4	6	16	23	214	15	252	27	7	11	45	4	155	24	183
+30 mins.	5	6	2	13	14	175	11	200	33	13	7	53	13	196	26	235
+45 mins.	8	6	6	20	11	200	10	221	29	14	7	50	4	162	24	190
Total Volume	23	22	15	60	59	770	44	873	112	43	31	186	24	700	102	826
% App. Total	38.3	36.7	25		6.8	88.2	5		60.2	23.1	16.7		2.9	84.7	12.3	
PHF	.719	.917	.625	.750	.641	.900	.733	.866	.848	.768	.705	.877	.462	.893	.911	.879

City of Yucca Valley
 N/S: Walmart Driveway
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 04_YCV_Wal DW_29P AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Twentynine Palms Highway Westbound			Walmart Driveway Northbound			Twentynine Palms Highway Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	19	103	122	11	6	17	129	12	141	280
07:15 AM	16	129	145	7	10	17	117	14	131	293
07:30 AM	18	118	136	9	11	20	133	16	149	305
07:45 AM	16	145	161	10	8	18	117	13	130	309
Total	69	495	564	37	35	72	496	55	551	1187
08:00 AM	20	122	142	11	10	21	127	12	139	302
08:15 AM	22	125	147	13	13	26	106	15	121	294
08:30 AM	31	181	212	8	7	15	139	18	157	384
08:45 AM	35	167	202	16	14	30	103	18	121	353
Total	108	595	703	48	44	92	475	63	538	1333
Grand Total	177	1090	1267	85	79	164	971	118	1089	2520
Apprch %	14	86		51.8	48.2		89.2	10.8		
Total %	7	43.3	50.3	3.4	3.1	6.5	38.5	4.7	43.2	

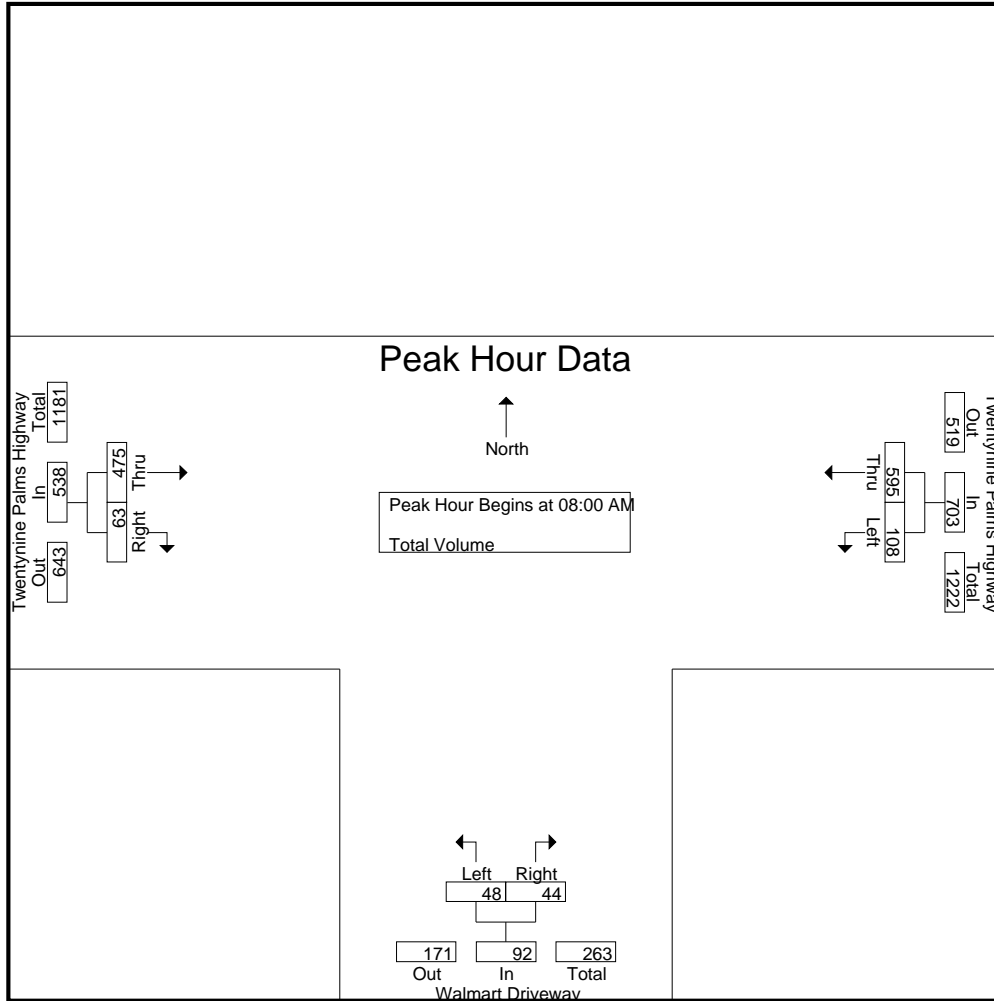
Start Time	Twentynine Palms Highway Westbound			Walmart Driveway Northbound			Twentynine Palms Highway Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
08:00 AM	20	122	142	11	10	21	127	12	139	302
08:15 AM	22	125	147	13	13	26	106	15	121	294
08:30 AM	31	181	212	8	7	15	139	18	157	384
08:45 AM	35	167	202	16	14	30	103	18	121	353
Total Volume	108	595	703	48	44	92	475	63	538	1333
% App. Total	15.4	84.6		52.2	47.8		88.3	11.7		
PHF	.771	.822	.829	.750	.786	.767	.854	.875	.857	.868

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

City of Yucca Valley
 N/S: Walmart Driveway
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 04_YCV_Wal DW_29P AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			07:00 AM		
+0 mins.	20	122	142	11	10	21	129	12	141
+15 mins.	22	125	147	13	13	26	117	14	131
+30 mins.	31	181	212	8	7	15	133	16	149
+45 mins.	35	167	202	16	14	30	117	13	130
Total Volume	108	595	703	48	44	92	496	55	551
% App. Total	15.4	84.6		52.2	47.8		90	10	
PHF	.771	.822	.829	.750	.786	.767	.932	.859	.924

City of Yucca Valley
 N/S: Walmart Driveway
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 04_YCV_Wal DW_29P PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Twentynine Palms Highway Westbound			Walmart Driveway Northbound			Twentynine Palms Highway Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	31	148	179	23	42	65	159	24	183	427
04:15 PM	23	201	224	21	38	59	126	20	146	429
04:30 PM	38	208	246	36	42	78	169	23	192	516
04:45 PM	40	174	214	30	27	57	137	25	162	433
Total	132	731	863	110	149	259	591	92	683	1805
05:00 PM	33	188	221	26	34	60	176	27	203	484
05:15 PM	33	182	215	28	24	52	158	18	176	443
05:30 PM	36	150	186	25	33	58	149	28	177	421
05:45 PM	32	141	173	21	29	50	137	14	151	374
Total	134	661	795	100	120	220	620	87	707	1722
Grand Total	266	1392	1658	210	269	479	1211	179	1390	3527
Apprch %	16	84		43.8	56.2		87.1	12.9		
Total %	7.5	39.5	47	6	7.6	13.6	34.3	5.1	39.4	

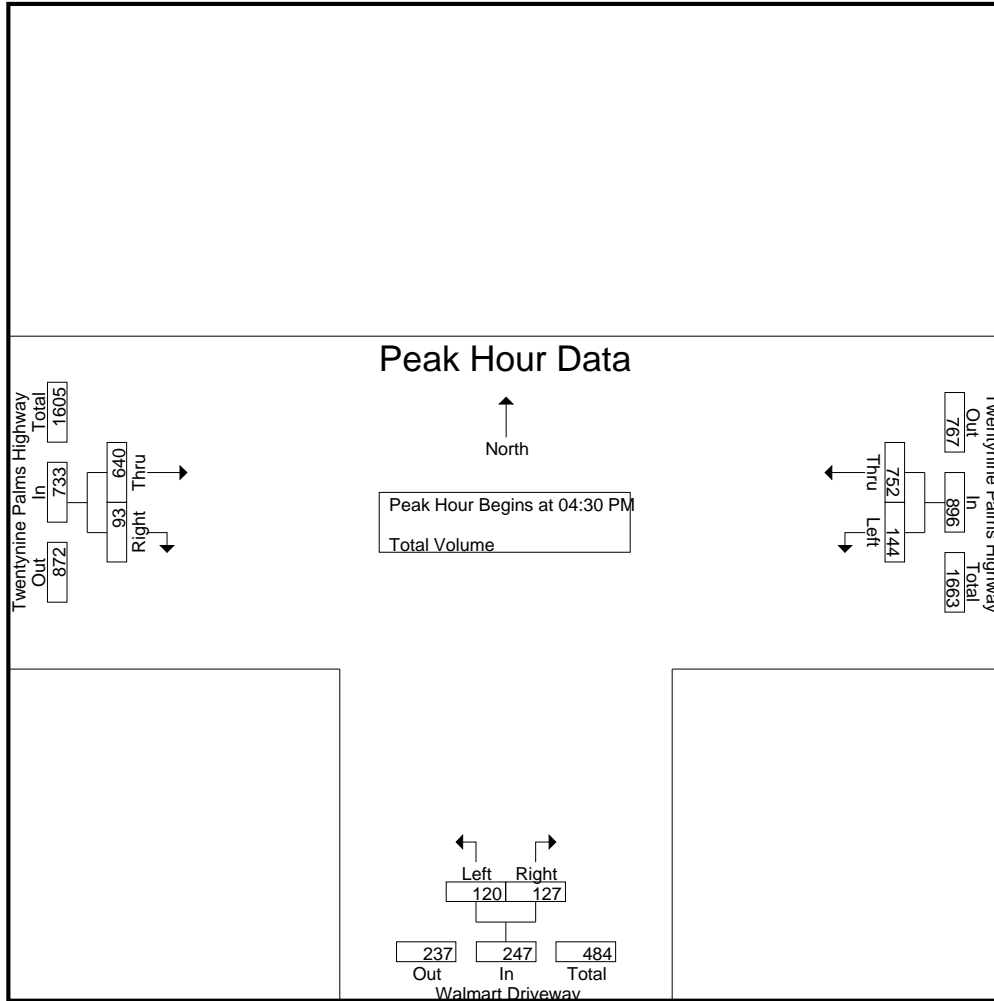
Start Time	Twentynine Palms Highway Westbound			Walmart Driveway Northbound			Twentynine Palms Highway Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	38	208	246	36	42	78	169	23	192	516
04:45 PM	40	174	214	30	27	57	137	25	162	433
05:00 PM	33	188	221	26	34	60	176	27	203	484
05:15 PM	33	182	215	28	24	52	158	18	176	443
Total Volume	144	752	896	120	127	247	640	93	733	1876
% App. Total	16.1	83.9		48.6	51.4		87.3	12.7		
PHF	.900	.904	.911	.833	.756	.792	.909	.861	.903	.909

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

City of Yucca Valley
 N/S: Walmart Driveway
 E/W: Twentynine Palms Highway (SR-62)
 Weather: Clear

File Name : 04_YCV_Wal DW_29P PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM			04:00 PM			04:30 PM		
+0 mins.	23	201	224	23	42	65	169	23	192
+15 mins.	38	208	246	21	38	59	137	25	162
+30 mins.	40	174	214	36	42	78	176	27	203
+45 mins.	33	188	221	30	27	57	158	18	176
Total Volume	134	771	905	110	149	259	640	93	733
% App. Total	14.8	85.2		42.5	57.5		87.3	12.7	
PHF	.838	.927	.920	.764	.887	.830	.909	.861	.903

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Palisade Drive
 Weather: Clear

File Name : 05_YCV_Ava_Pal AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

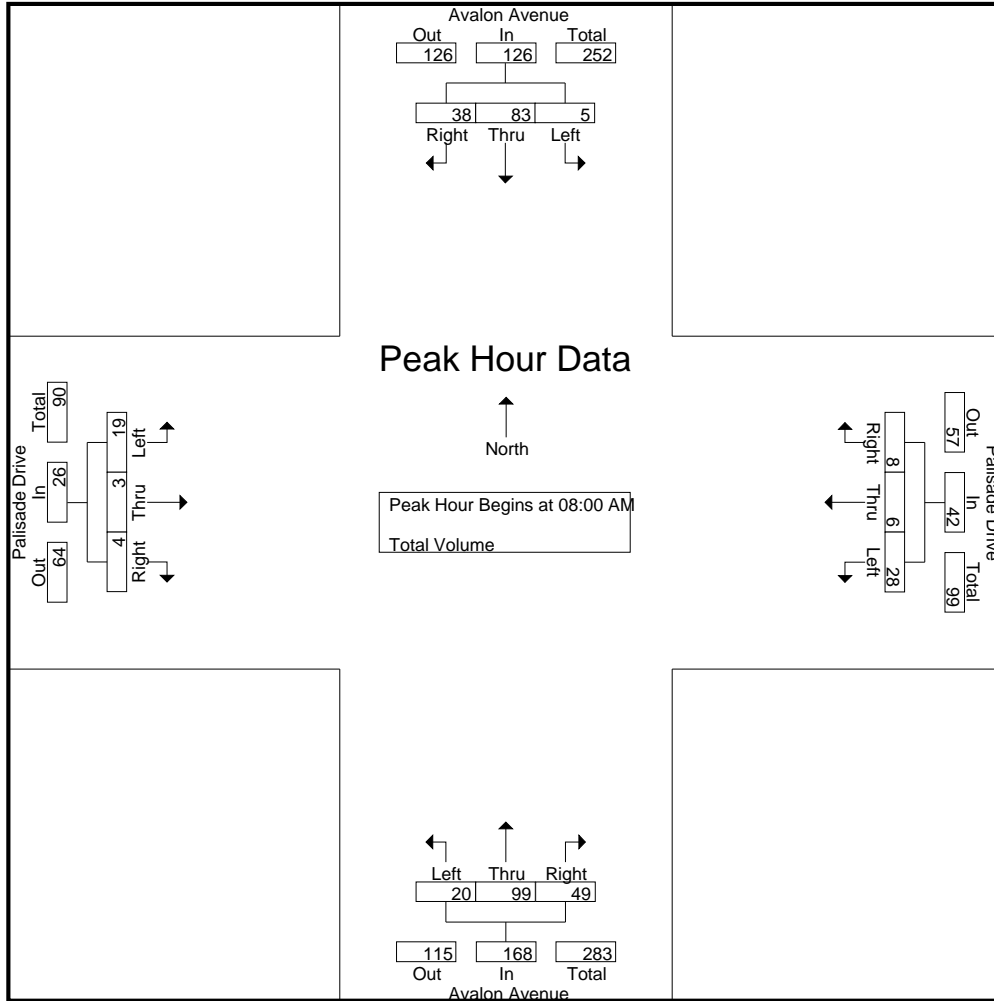
Groups Printed- Total Volume

Start Time	Avalon Avenue Southbound				Palisade Drive Westbound				Avalon Avenue Northbound				Palisade Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	9	3	12	7	0	1	8	0	18	11	29	2	0	0	2	51
07:15 AM	1	10	0	11	5	1	3	9	1	17	8	26	3	1	0	4	50
07:30 AM	1	9	5	15	7	1	2	10	0	15	8	23	1	0	0	1	49
07:45 AM	1	14	9	24	6	1	1	8	6	17	14	37	0	0	0	0	69
Total	3	42	17	62	25	3	7	35	7	67	41	115	6	1	0	7	219
08:00 AM	1	18	10	29	6	3	1	10	3	18	12	33	0	0	0	0	72
08:15 AM	2	19	9	30	10	0	2	12	10	20	8	38	1	2	2	5	85
08:30 AM	0	26	10	36	5	1	3	9	2	29	13	44	13	0	2	15	104
08:45 AM	2	20	9	31	7	2	2	11	5	32	16	53	5	1	0	6	101
Total	5	83	38	126	28	6	8	42	20	99	49	168	19	3	4	26	362
Grand Total	8	125	55	188	53	9	15	77	27	166	90	283	25	4	4	33	581
Apprch %	4.3	66.5	29.3		68.8	11.7	19.5		9.5	58.7	31.8		75.8	12.1	12.1		
Total %	1.4	21.5	9.5	32.4	9.1	1.5	2.6	13.3	4.6	28.6	15.5	48.7	4.3	0.7	0.7	5.7	

Start Time	Avalon Avenue Southbound				Palisade Drive Westbound				Avalon Avenue Northbound				Palisade Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	1	18	10	29	6	3	1	10	3	18	12	33	0	0	0	0	72
08:15 AM	2	19	9	30	10	0	2	12	10	20	8	38	1	2	2	5	85
08:30 AM	0	26	10	36	5	1	3	9	2	29	13	44	13	0	2	15	104
08:45 AM	2	20	9	31	7	2	2	11	5	32	16	53	5	1	0	6	101
Total Volume	5	83	38	126	28	6	8	42	20	99	49	168	19	3	4	26	362
% App. Total	4	65.9	30.2		66.7	14.3	19		11.9	58.9	29.2		73.1	11.5	15.4		
PHF	.625	.798	.950	.875	.700	.500	.667	.875	.500	.773	.766	.792	.365	.375	.500	.433	.870

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Palisade Drive
 Weather: Clear

File Name : 05_YCV_Ava_Pal AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	1	18	10	29	6	3	1	10	3	18	12	33	0	0	0	0
+15 mins.	2	19	9	30	10	0	2	12	10	20	8	38	1	2	2	5
+30 mins.	0	26	10	36	5	1	3	9	2	29	13	44	13	0	2	15
+45 mins.	2	20	9	31	7	2	2	11	5	32	16	53	5	1	0	6
Total Volume	5	83	38	126	28	6	8	42	20	99	49	168	19	3	4	26
% App. Total	4	65.9	30.2		66.7	14.3	19		11.9	58.9	29.2		73.1	11.5	15.4	
PHF	.625	.798	.950	.875	.700	.500	.667	.875	.500	.773	.766	.792	.365	.375	.500	.433

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Palisade Drive
 Weather: Clear

File Name : 05_YCV_Ava_Pal PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Avalon Avenue Southbound				Palisade Drive Westbound				Avalon Avenue Northbound				Palisade Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	2	30	10	42	16	1	5	22	2	25	23	50	4	2	0	6	120
04:15 PM	1	22	7	30	16	1	2	19	2	13	14	29	10	0	1	11	89
04:30 PM	3	37	9	49	13	2	1	16	2	21	8	31	12	2	5	19	115
04:45 PM	1	22	4	27	14	1	5	20	1	29	14	44	7	1	3	11	102
Total	7	111	30	148	59	5	13	77	7	88	59	154	33	5	9	47	426
05:00 PM	3	23	7	33	23	2	2	27	0	25	15	40	11	1	5	17	117
05:15 PM	2	27	9	38	14	2	4	20	0	27	15	42	5	2	2	9	109
05:30 PM	3	28	2	33	14	4	3	21	3	23	14	40	10	1	3	14	108
05:45 PM	1	18	1	20	11	1	3	15	0	26	22	48	2	1	0	3	86
Total	9	96	19	124	62	9	12	83	3	101	66	170	28	5	10	43	420
Grand Total	16	207	49	272	121	14	25	160	10	189	125	324	61	10	19	90	846
Apprch %	5.9	76.1	18		75.6	8.8	15.6		3.1	58.3	38.6		67.8	11.1	21.1		
Total %	1.9	24.5	5.8	32.2	14.3	1.7	3	18.9	1.2	22.3	14.8	38.3	7.2	1.2	2.2	10.6	

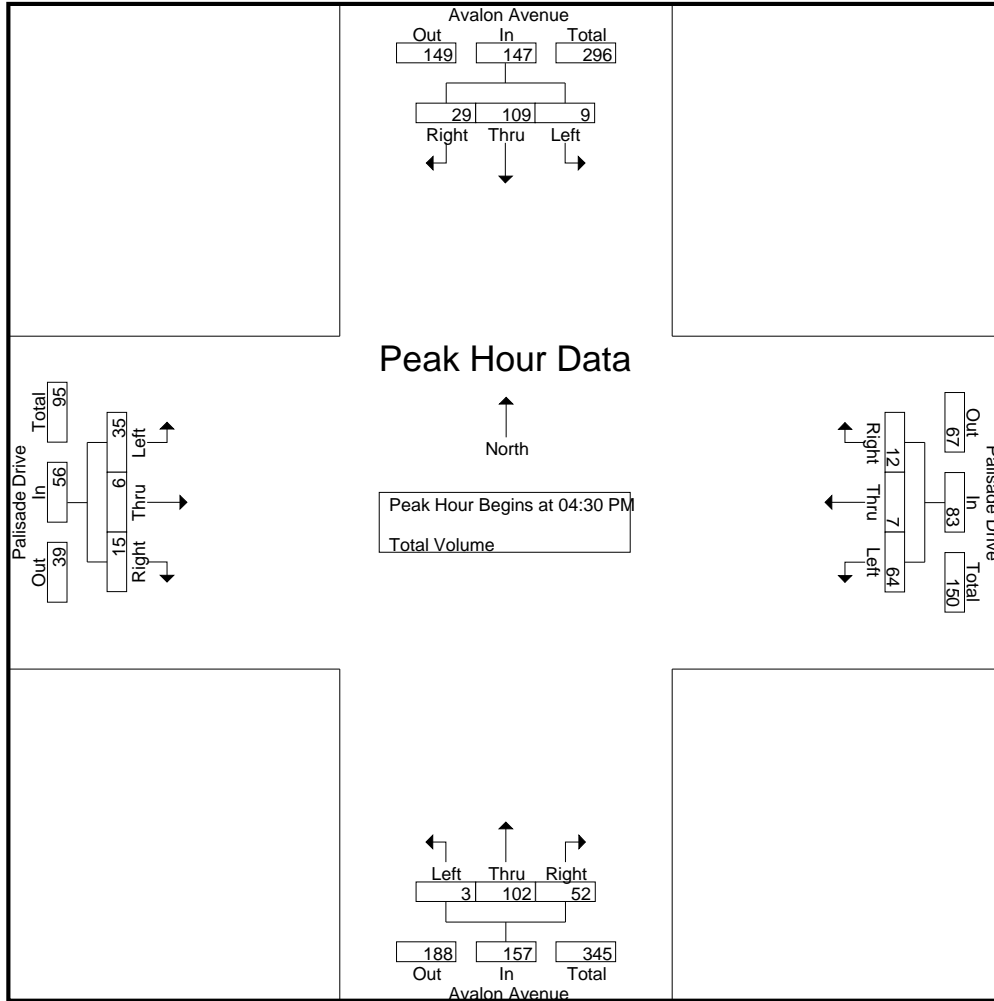
Start Time	Avalon Avenue Southbound				Palisade Drive Westbound				Avalon Avenue Northbound				Palisade Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	3	37	9	49	13	2	1	16	2	21	8	31	12	2	5	19	115
04:45 PM	1	22	4	27	14	1	5	20	1	29	14	44	7	1	3	11	102
05:00 PM	3	23	7	33	23	2	2	27	0	25	15	40	11	1	5	17	117
05:15 PM	2	27	9	38	14	2	4	20	0	27	15	42	5	2	2	9	109
Total Volume	9	109	29	147	64	7	12	83	3	102	52	157	35	6	15	56	443
% App. Total	6.1	74.1	19.7		77.1	8.4	14.5		1.9	65	33.1		62.5	10.7	26.8		
PHF	.750	.736	.806	.750	.696	.875	.600	.769	.375	.879	.867	.892	.729	.750	.750	.737	.947

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Palisade Drive
 Weather: Clear

File Name : 05_YCV_Ava_Pal PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				05:00 PM				04:15 PM			
+0 mins.	2	30	10	42	14	1	5	20	0	25	15	40	10	0	1	11
+15 mins.	1	22	7	30	23	2	2	27	0	27	15	42	12	2	5	19
+30 mins.	3	37	9	49	14	2	4	20	3	23	14	40	7	1	3	11
+45 mins.	1	22	4	27	14	4	3	21	0	26	22	48	11	1	5	17
Total Volume	7	111	30	148	65	9	14	88	3	101	66	170	40	4	14	58
% App. Total	4.7	75	20.3		73.9	10.2	15.9		1.8	59.4	38.8		69	6.9	24.1	
PHF	.583	.750	.750	.755	.707	.563	.700	.815	.250	.935	.750	.885	.833	.500	.700	.763

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Paxton Road
 Weather: Clear

File Name : 06_YCV_Ava_Pax AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Avalon Avenue Southbound			Avalon Avenue Northbound			Paxton Road Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	6	9	15	4	7	11	3	10	13	39
07:15 AM	6	8	14	4	4	8	10	6	16	38
07:30 AM	9	9	18	4	2	6	0	17	17	41
07:45 AM	4	6	10	5	2	7	5	7	12	29
Total	25	32	57	17	15	32	18	40	58	147
08:00 AM	8	23	31	4	6	10	8	6	14	55
08:15 AM	8	9	17	4	3	7	6	9	15	39
08:30 AM	15	4	19	1	3	4	11	7	18	41
08:45 AM	9	9	18	12	7	19	6	5	11	48
Total	40	45	85	21	19	40	31	27	58	183
Grand Total	65	77	142	38	34	72	49	67	116	330
Apprch %	45.8	54.2		52.8	47.2		42.2	57.8		
Total %	19.7	23.3	43	11.5	10.3	21.8	14.8	20.3	35.2	

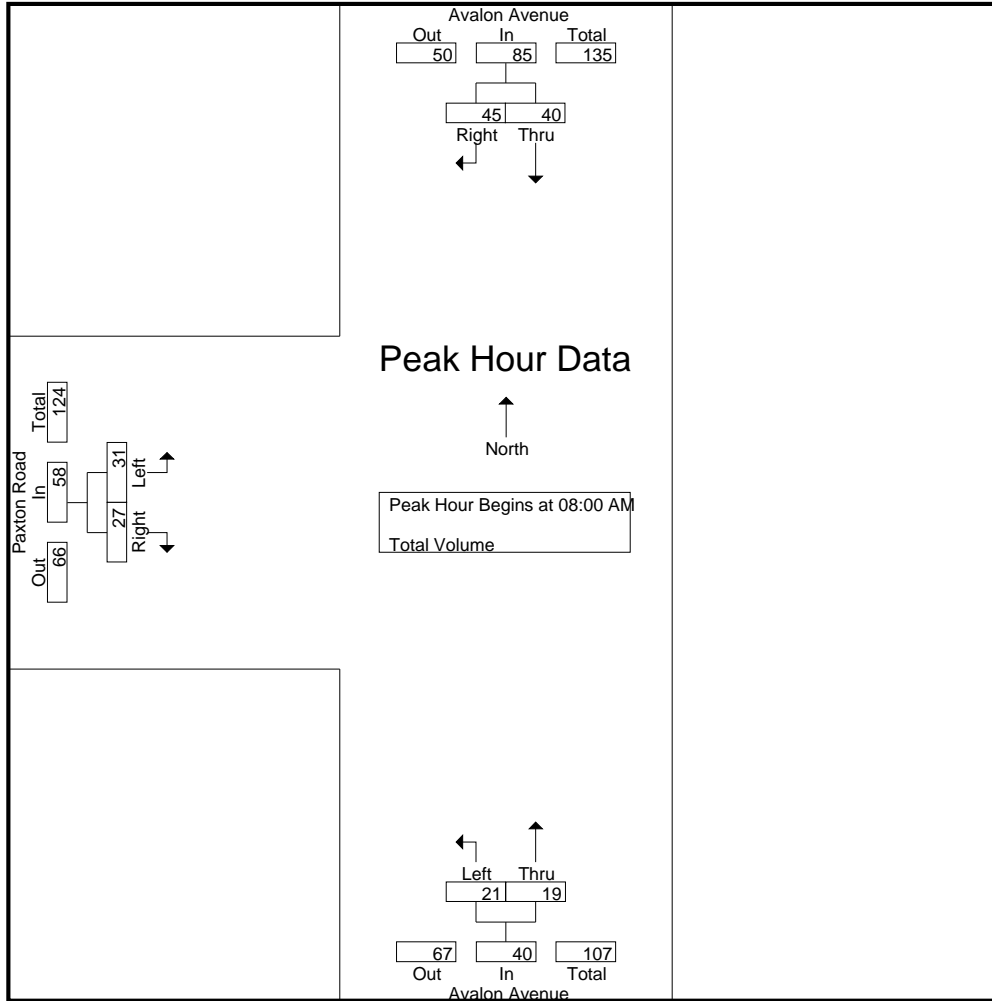
Start Time	Avalon Avenue Southbound			Avalon Avenue Northbound			Paxton Road Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
08:00 AM	8	23	31	4	6	10	8	6	14	55
08:15 AM	8	9	17	4	3	7	6	9	15	39
08:30 AM	15	4	19	1	3	4	11	7	18	41
08:45 AM	9	9	18	12	7	19	6	5	11	48
Total Volume	40	45	85	21	19	40	31	27	58	183
% App. Total	47.1	52.9		52.5	47.5		53.4	46.6		
PHF	.667	.489	.685	.438	.679	.526	.705	.750	.806	.832

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Paxton Road
 Weather: Clear

File Name : 06_YCV_Ava_Pax AM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			07:15 AM		
+0 mins.	8	23	31	4	6	10	10	6	16
+15 mins.	8	9	17	4	3	7	0	17	17
+30 mins.	15	4	19	1	3	4	5	7	12
+45 mins.	9	9	18	12	7	19	8	6	14
Total Volume	40	45	85	21	19	40	23	36	59
% App. Total	47.1	52.9		52.5	47.5		39	61	
PHF	.667	.489	.685	.438	.679	.526	.575	.529	.868

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Paxton Road
 Weather: Clear

File Name : 06_YCV_Ava_Pax PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 1

Groups Printed- Total Volume

Start Time	Avalon Avenue Southbound			Avalon Avenue Northbound			Paxton Road Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	4	11	15	7	12	19	11	10	21	55
04:15 PM	9	12	21	17	5	22	16	7	23	66
04:30 PM	5	11	16	19	8	27	8	3	11	54
04:45 PM	6	22	28	12	7	19	11	9	20	67
Total	24	56	80	55	32	87	46	29	75	242
05:00 PM	4	6	10	19	16	35	10	7	17	62
05:15 PM	10	14	24	13	10	23	14	4	18	65
05:30 PM	8	7	15	17	6	23	19	10	29	67
05:45 PM	5	15	20	17	4	21	6	10	16	57
Total	27	42	69	66	36	102	49	31	80	251
Grand Total	51	98	149	121	68	189	95	60	155	493
Apprch %	34.2	65.8		64	36		61.3	38.7		
Total %	10.3	19.9	30.2	24.5	13.8	38.3	19.3	12.2	31.4	

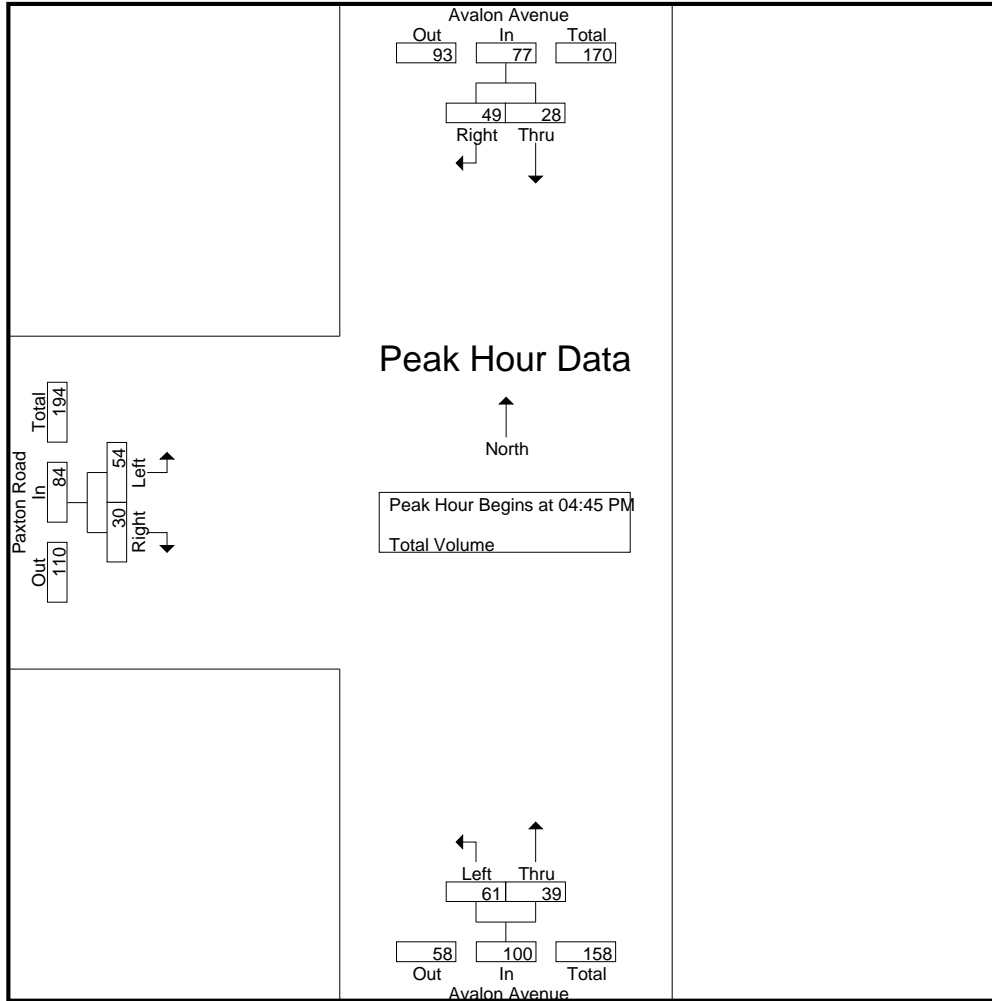
Start Time	Avalon Avenue Southbound			Avalon Avenue Northbound			Paxton Road Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:45 PM	6	22	28	12	7	19	11	9	20	67
05:00 PM	4	6	10	19	16	35	10	7	17	62
05:15 PM	10	14	24	13	10	23	14	4	18	65
05:30 PM	8	7	15	17	6	23	19	10	29	67
Total Volume	28	49	77	61	39	100	54	30	84	261
% App. Total	36.4	63.6		61	39		64.3	35.7		
PHF	.700	.557	.688	.803	.609	.714	.711	.750	.724	.974

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

City of Yucca Valley
 N/S: Avalon Avenue
 E/W: Paxton Road
 Weather: Clear

File Name : 06_YCV_Ava_Pax PM
 Site Code : 10825803
 Start Date : 8/21/2025
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			04:45 PM		
+0 mins.	4	11	15	19	8	27	11	9	20
+15 mins.	9	12	21	12	7	19	10	7	17
+30 mins.	5	11	16	19	16	35	14	4	18
+45 mins.	6	22	28	13	10	23	19	10	29
Total Volume	24	56	80	63	41	104	54	30	84
% App. Total	30	70		60.6	39.4		64.3	35.7	
PHF	.667	.636	.714	.829	.641	.743	.711	.750	.724

APPENDIX C

INTERSECTION ANALYSIS WORKSHEETS

HCM 7th Signalized Intersection Summary

1: Balsa Avenue & 29 Parlms Hwy/29 Palms Hwy

09/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	↶
Traffic Volume (veh/h)	8	541	27	30	593	18	52	23	11	33	20	21
Future Volume (veh/h)	8	541	27	30	593	18	52	23	11	33	20	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	9	582	29	36	706	21	78	34	16	38	23	24
Peak Hour Factor	0.93	0.93	0.93	0.84	0.84	0.84	0.67	0.67	0.67	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	18	815	41	57	914	27	618	968	425	59	931	789
Arrive On Green	0.01	0.25	0.25	0.04	0.27	0.27	0.43	0.43	0.43	0.04	0.53	0.53
Sat Flow, veh/h	1594	3264	162	1594	3338	99	1216	2276	999	1594	1772	1502
Grp Volume(v), veh/h	9	300	311	36	356	371	78	24	26	38	23	24
Grp Sat Flow(s),veh/h/ln	1594	1683	1743	1594	1683	1754	1216	1683	1592	1594	1772	1502
Q Serve(g_s), s	0.4	11.6	11.6	1.6	13.9	13.9	2.8	0.6	0.7	1.7	0.4	0.6
Cycle Q Clear(g_c), s	0.4	11.6	11.6	1.6	13.9	13.9	2.8	0.6	0.7	1.7	0.4	0.6
Prop In Lane	1.00		0.09	1.00		0.06	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	18	420	435	57	461	480	618	716	677	59	931	789
V/C Ratio(X)	0.49	0.71	0.72	0.63	0.77	0.77	0.13	0.03	0.04	0.64	0.02	0.03
Avail Cap(c_a), veh/h	123	719	745	190	790	823	618	716	677	190	931	789
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	24.4	24.5	33.9	23.9	23.9	12.6	12.0	12.0	33.9	8.1	8.2
Incr Delay (d2), s/veh	19.1	2.3	2.2	11.0	2.8	2.7	0.4	0.1	0.1	11.1	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	0.2	4.3	4.5	0.7	5.1	5.3	0.8	0.2	0.2	0.8	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.2	26.7	26.7	44.9	26.6	26.5	13.0	12.0	12.1	45.0	8.2	8.2
LnGrp LOS	D	C	C	D	C	C	B	B	B	D	A	A
Approach Vol, veh/h	620			763			128			85		
Approach Delay, s/veh	27.1			27.5			12.6			24.7		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	6	7	8					
Phs Duration (G+Y+Rc), s	7.1	34.9	7.1	22.3	42.0	5.3	24.0					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	8.5	24.5	8.5	30.5	37.5	5.5	33.5					
Max Q Clear Time (g_c+I1), s	3.7	4.8	3.6	13.6	2.6	2.4	15.9					
Green Ext Time (p_c), s	0.0	0.4	0.0	2.9	0.2	0.0	3.6					
Intersection Summary												
HCM 7th Control Delay, s/veh	26.0											
HCM 7th LOS	C											

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕	↗	↘	↕	↗		↕			↕	
Traffic Vol, veh/h	3	571	9	15	634	2	7	1	4	1	1	4
Future Vol, veh/h	3	571	9	15	634	2	7	1	4	1	1	4
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	100	-	50	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	84	84	84	60	60	60	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	621	10	18	755	2	12	2	7	1	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	757	0	0	630	0	0	1041	1420	310	1108	1427	377
Stage 1	-	-	-	-	-	-	627	627	-	790	790	-
Stage 2	-	-	-	-	-	-	414	793	-	318	637	-
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	850	-	-	948	-	-	184	135	686	164	134	620
Stage 1	-	-	-	-	-	-	438	474	-	349	399	-
Stage 2	-	-	-	-	-	-	586	398	-	668	470	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	850	-	-	948	-	-	177	132	686	157	131	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	177	132	-	157	131	-
Stage 1	-	-	-	-	-	-	436	473	-	343	392	-
Stage 2	-	-	-	-	-	-	568	391	-	657	468	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.05			0.2			22.44			17.61		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	850	-	-	948	-	-	293
HCM Lane V/C Ratio	0.088	0.004	-	-	0.019	-	-	0.027
HCM Ctrl Dly (s/v)	22.4	9.3	-	-	8.9	-	-	17.6
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1

HCM 7th Signalized Intersection Summary

3: Avalon Ave & 29 Palms Hwy

09/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	10	515	53	46	572	7	54	19	39	17	30	17
Future Volume (veh/h)	10	515	53	46	572	7	54	19	39	17	30	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1673	1772	1772	1673	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	11	548	56	53	665	8	73	26	53	22	39	22
Peak Hour Factor	0.94	0.94	0.94	0.86	0.86	0.86	0.74	0.74	0.74	0.76	0.76	0.76
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	811	362	77	926	413	168	700	593	41	643	545
Arrive On Green	0.01	0.24	0.24	0.05	0.28	0.28	0.06	0.40	0.40	0.03	0.36	0.36
Sat Flow, veh/h	1594	3367	1502	1594	3367	1502	2910	1772	1502	1594	1772	1502
Grp Volume(v), veh/h	11	548	56	53	665	8	73	26	53	22	39	22
Grp Sat Flow(s),veh/h/ln	1594	1683	1502	1594	1683	1502	1455	1772	1502	1594	1772	1502
Q Serve(g_s), s	0.4	9.2	1.8	2.0	11.1	0.2	1.5	0.6	1.4	0.8	0.9	0.6
Cycle Q Clear(g_c), s	0.4	9.2	1.8	2.0	11.1	0.2	1.5	0.6	1.4	0.8	0.9	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	811	362	77	926	413	168	700	593	41	643	545
V/C Ratio(X)	0.50	0.68	0.15	0.69	0.72	0.02	0.43	0.04	0.09	0.54	0.06	0.04
Avail Cap(c_a), veh/h	167	1656	739	270	1873	836	399	700	593	219	643	545
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	30.4	21.3	18.6	29.0	20.3	16.4	28.2	11.5	11.8	29.9	12.9	12.8
Incr Delay (d2), s/veh	16.1	1.0	0.2	10.4	1.1	0.0	1.8	0.1	0.3	10.8	0.2	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	0.3	3.4	0.6	0.9	3.7	0.1	0.5	0.2	0.4	0.4	0.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.5	22.3	18.8	39.5	21.4	16.4	30.0	11.6	12.1	40.7	13.0	12.9
LnGrp LOS	D	C	B	D	C	B	C	B	B	D	B	B
Approach Vol, veh/h		615			726			152			83	
Approach Delay, s/veh		22.4			22.6			20.6			20.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	29.0	7.5	19.4	8.1	27.0	5.4	21.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	22.5	10.5	30.5	8.5	22.5	6.5	34.5				
Max Q Clear Time (g_c+I1), s	2.8	3.4	4.0	11.2	3.5	2.9	2.4	13.1				
Green Ext Time (p_c), s	0.0	0.2	0.0	3.8	0.1	0.2	0.0	4.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			22.2									
HCM 7th LOS			C									

HCM 7th Signalized Intersection Summary
 4: Walmart DRWY & 29 Palms Hwy/29 Palms Hwy

09/09/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	475	63	108	595	48	44
Future Volume (veh/h)	475	63	108	595	48	44
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1673	1772	1575	1772
Adj Flow Rate, veh/h	552	73	130	717	62	57
Peak Hour Factor	0.86	0.86	0.83	0.83	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	990	966	166	1323	1277	659
Arrive On Green	0.20	0.20	0.10	0.39	0.44	0.44
Sat Flow, veh/h	4997	1502	1594	3455	2910	1502
Grp Volume(v), veh/h	552	73	130	717	62	57
Grp Sat Flow(s),veh/h/ln	1612	1502	1594	1683	1455	1502
Q Serve(g_s), s	5.5	1.0	4.3	8.8	0.7	1.2
Cycle Q Clear(g_c), s	5.5	1.0	4.3	8.8	0.7	1.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	990	966	166	1323	1277	659
V/C Ratio(X)	0.56	0.08	0.78	0.54	0.05	0.09
Avail Cap(c_a), veh/h	2575	1458	729	3616	1277	659
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.1	3.6	23.4	12.5	8.6	8.8
Incr Delay (d2), s/veh	0.5	0.0	7.8	0.3	0.1	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.6	1.7	2.4	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.6	3.6	31.1	12.9	8.7	9.0
LnGrp LOS	B	A	C	B	A	A
Approach Vol, veh/h	625			847	119	
Approach Delay, s/veh	17.7			15.7	8.8	
Approach LOS	B			B	A	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		28.0	10.1	15.5		25.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		23.5	24.5	28.5		57.5
Max Q Clear Time (g_c+I1), s		3.2	6.3	7.5		10.8
Green Ext Time (p_c), s		0.3	0.3	3.5		4.9
Intersection Summary						
HCM 7th Control Delay, s/veh			16.0			
HCM 7th LOS			B			

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗		↔	↗	↖	↖		↖	↖	↖
Traffic Vol, veh/h	19	3	4	28	6	8	20	99	49	5	83	38
Future Vol, veh/h	19	3	4	28	6	8	20	99	49	5	83	38
Peak Hour Factor	0.43	0.43	0.43	0.88	0.88	0.88	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	44	7	9	32	7	9	25	125	62	6	94	43
Number of Lanes	0	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	9.1	8.9	9.3	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	86%	0%	82%	0%	100%	0%	0%
Vol Thru, %	0%	67%	14%	0%	18%	0%	0%	100%	0%
Vol Right, %	0%	33%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	148	22	4	34	8	5	83	38
LT Vol	20	0	19	0	28	0	5	0	0
Through Vol	0	99	3	0	6	0	0	83	0
RT Vol	0	49	0	4	0	8	0	0	38
Lane Flow Rate	25	187	51	9	39	9	6	94	43
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.04	0.257	0.085	0.013	0.065	0.012	0.009	0.139	0.055
Departure Headway (Hd)	5.669	4.935	6.013	4.877	6.025	4.91	5.807	5.305	4.602
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	631	727	594	730	593	725	615	674	776
Service Time	3.404	2.67	3.767	2.632	3.78	2.664	3.55	3.048	2.345
HCM Lane V/C Ratio	0.04	0.257	0.086	0.012	0.066	0.012	0.01	0.139	0.055
HCM Control Delay, s/veh	8.6	9.4	9.3	7.7	9.2	7.7	8.6	8.9	7.6
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	1	0.3	0	0.2	0	0	0.5	0.2

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	31	27	21	19	40	45
Future Vol, veh/h	31	27	21	19	40	45
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	81	81	53	53	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	33	40	36	59	66

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	207	92	125	0	-	0
Stage 1	92	-	-	-	-	-
Stage 2	115	-	-	-	-	-
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	781	965	1462	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	760	965	1462	-	-	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.66	3.95	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	945	-	843	-	-
HCM Lane V/C Ratio	0.027	-	0.085	-	-
HCM Ctrl Dly (s/v)	7.5	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

HCM 7th Signalized Intersection Summary

1: Balsa Avenue & 29 Parlms Hwy/29 Palms Hwy

09/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕		↗	↕		↖	↕	↗
Traffic Volume (veh/h)	18	699	61	52	805	68	66	53	38	90	62	27
Future Volume (veh/h)	18	699	61	52	805	68	66	53	38	90	62	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	19	744	65	53	821	69	79	63	45	99	68	30
Peak Hour Factor	0.94	0.94	0.94	0.98	0.98	0.98	0.84	0.84	0.84	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	929	81	70	1001	84	500	686	447	124	862	731
Arrive On Green	0.02	0.30	0.30	0.04	0.32	0.32	0.35	0.35	0.35	0.08	0.49	0.49
Sat Flow, veh/h	1594	3132	274	1594	3144	264	1161	1954	1273	1594	1772	1502
Grp Volume(v), veh/h	19	400	409	53	440	450	79	53	55	99	68	30
Grp Sat Flow(s),veh/h/ln	1594	1683	1723	1594	1683	1724	1161	1683	1543	1594	1772	1502
Q Serve(g_s), s	0.9	17.1	17.1	2.6	18.8	18.8	3.7	1.7	1.9	4.8	1.6	0.8
Cycle Q Clear(g_c), s	0.9	17.1	17.1	2.6	18.8	18.8	3.7	1.7	1.9	4.8	1.6	0.8
Prop In Lane	1.00		0.16	1.00		0.15	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	34	499	511	70	536	549	500	591	542	124	862	731
V/C Ratio(X)	0.55	0.80	0.80	0.76	0.82	0.82	0.16	0.09	0.10	0.80	0.08	0.04
Avail Cap(c_a), veh/h	104	663	679	162	724	741	500	591	542	256	862	731
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	25.3	25.3	36.8	24.5	24.5	17.6	16.9	17.0	35.3	10.7	10.5
Incr Delay (d2), s/veh	13.0	5.2	5.1	15.4	5.5	5.4	0.7	0.3	0.4	11.2	0.2	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	6.7	6.9	1.2	7.3	7.5	1.0	0.7	0.7	2.2	0.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.7	30.5	30.4	52.2	30.0	29.9	18.3	17.2	17.4	46.5	10.9	10.6
LnGrp LOS	D	C	C	D	C	C	B	B	B	D	B	B
Approach Vol, veh/h	828			943			187			197		
Approach Delay, s/veh	30.9			31.2			17.7			28.7		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	10.5	31.9	7.9	27.6		42.4	6.2	29.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	20.9	7.9	30.7		37.9	5.1	33.5				
Max Q Clear Time (g_c+I1), s	6.8	5.7	4.6	19.1		3.6	2.9	20.8				
Green Ext Time (p_c), s	0.1	0.7	0.0	3.5		0.4	0.0	4.1				
Intersection Summary												
HCM 7th Control Delay, s/veh				29.7								
HCM 7th LOS				C								

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↘		↔			↔	
Traffic Vol, veh/h	10	813	3	2	911	1	6	0	6	0	0	1
Future Vol, veh/h	10	813	3	2	911	1	6	0	6	0	0	1
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	100	-	50	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	97	97	97	75	75	75	25	25	25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	856	3	2	939	1	8	0	8	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	940	0	0	859	0	0	1351	1821	428	1392	1823	470
Stage 1	-	-	-	-	-	-	877	877	-	943	943	-
Stage 2	-	-	-	-	-	-	474	944	-	449	880	-
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	725	-	-	778	-	-	109	77	575	101	76	540
Stage 1	-	-	-	-	-	-	310	364	-	282	339	-
Stage 2	-	-	-	-	-	-	540	339	-	559	363	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	725	-	-	778	-	-	106	75	575	98	75	540
Mov Cap-2 Maneuver	-	-	-	-	-	-	106	75	-	98	75	-
Stage 1	-	-	-	-	-	-	305	359	-	281	338	-
Stage 2	-	-	-	-	-	-	535	338	-	543	358	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.12			0.02			27.03			11.71		
HCM LOS							D			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	179	725	-	-	778	-	-	540
HCM Lane V/C Ratio	0.089	0.015	-	-	0.003	-	-	0.007
HCM Ctrl Dly (s/v)	27	10	-	-	9.6	-	-	11.7
HCM Lane LOS	D	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary

3: Avalon Ave & 29 Palms Hwy

09/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↘	↘	↑↑	↘	↘↘	↑	↘	↘	↑	↘
Traffic Volume (veh/h)	24	700	102	53	775	42	112	43	31	14	19	16
Future Volume (veh/h)	24	700	102	53	775	42	112	43	31	14	19	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1673	1772	1772	1673	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	27	795	116	62	901	49	127	49	35	18	25	21
Peak Hour Factor	0.88	0.88	0.88	0.86	0.86	0.86	0.88	0.88	0.88	0.77	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1098	490	80	1168	521	194	606	514	34	526	445
Arrive On Green	0.03	0.33	0.33	0.05	0.35	0.35	0.07	0.34	0.34	0.02	0.30	0.30
Sat Flow, veh/h	1594	3367	1502	1594	3367	1502	2910	1772	1502	1594	1772	1502
Grp Volume(v), veh/h	27	795	116	62	901	49	127	49	35	18	25	21
Grp Sat Flow(s),veh/h/ln	1594	1683	1502	1594	1683	1502	1455	1772	1502	1594	1772	1502
Q Serve(g_s), s	1.2	14.4	3.9	2.7	16.5	1.5	2.9	1.3	1.1	0.8	0.7	0.7
Cycle Q Clear(g_c), s	1.2	14.4	3.9	2.7	16.5	1.5	2.9	1.3	1.1	0.8	0.7	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	1098	490	80	1168	521	194	606	514	34	526	445
V/C Ratio(X)	0.58	0.72	0.24	0.77	0.77	0.09	0.65	0.08	0.07	0.53	0.05	0.05
Avail Cap(c_a), veh/h	150	1583	706	242	1778	793	358	606	514	127	526	445
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	33.1	20.6	17.0	32.4	20.1	15.2	31.5	15.4	15.3	33.5	17.3	17.3
Incr Delay (d2), s/veh	10.8	0.9	0.2	14.4	1.2	0.1	3.7	0.3	0.3	12.5	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	0.6	5.4	1.2	1.3	5.6	0.5	1.1	0.5	0.4	0.4	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.0	21.5	17.3	46.9	21.3	15.3	35.2	15.6	15.6	46.0	17.5	17.5
LnGrp LOS	D	C	B	D	C	B	D	B	B	D	B	B
Approach Vol, veh/h		938			1012			211			64	
Approach Delay, s/veh		21.6			22.6			27.4			25.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	28.1	8.0	27.0	9.1	25.0	6.5	28.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	23.5	10.5	32.5	8.5	20.5	6.5	36.5				
Max Q Clear Time (g_c+I1), s	2.8	3.3	4.7	16.4	4.9	2.7	3.2	18.5				
Green Ext Time (p_c), s	0.0	0.3	0.0	5.5	0.1	0.1	0.0	5.5				
Intersection Summary												
HCM 7th Control Delay, s/veh			22.7									
HCM 7th LOS			C									

HCM 7th Signalized Intersection Summary
 4: Walmart DRWY & 29 Palms Hwy/29 Palms Hwy

09/09/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	640	93	144	752	120	127
Future Volume (veh/h)	640	93	144	752	120	127
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1673	1772	1575	1772
Adj Flow Rate, veh/h	711	103	158	826	152	161
Peak Hour Factor	0.90	0.90	0.91	0.91	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1135	981	200	1460	1218	629
Arrive On Green	0.23	0.23	0.13	0.43	0.42	0.42
Sat Flow, veh/h	4997	1502	1594	3455	2910	1502
Grp Volume(v), veh/h	711	103	158	826	152	161
Grp Sat Flow(s),veh/h/ln	1612	1502	1594	1683	1455	1502
Q Serve(g_s), s	8.0	1.6	5.9	11.2	2.0	4.3
Cycle Q Clear(g_c), s	8.0	1.6	5.9	11.2	2.0	4.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1135	981	200	1460	1218	629
V/C Ratio(X)	0.63	0.11	0.79	0.57	0.12	0.26
Avail Cap(c_a), veh/h	2104	1282	641	3067	1218	629
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	20.9	3.9	25.9	12.9	10.9	11.5
Incr Delay (d2), s/veh	0.6	0.0	6.9	0.3	0.2	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.0	2.3	3.2	0.6	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.5	4.0	32.7	13.3	11.1	12.5
LnGrp LOS	C	A	C	B	B	B
Approach Vol, veh/h	814			984	313	
Approach Delay, s/veh	19.3			16.4	11.8	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		30.0	12.1	18.8		30.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		25.5	24.5	26.5		55.5
Max Q Clear Time (g_c+I1), s		6.3	7.9	10.0		13.2
Green Ext Time (p_c), s		1.0	0.3	4.3		5.8
Intersection Summary						
HCM 7th Control Delay, s/veh			16.8			
HCM 7th LOS			B			

Intersection

Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗		↔	↗	↖	↖		↖	↖	↗
Traffic Vol, veh/h	35	6	15	64	7	12	3	102	52	9	109	29
Future Vol, veh/h	35	6	15	64	7	12	3	102	52	9	109	29
Peak Hour Factor	0.74	0.74	0.74	0.77	0.77	0.77	0.89	0.89	0.89	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	8	20	83	9	16	3	115	58	12	145	39
Number of Lanes	0	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	9.3	9.8	9.9	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	85%	0%	90%	0%	100%	0%	0%
Vol Thru, %	0%	66%	15%	0%	10%	0%	0%	100%	0%
Vol Right, %	0%	34%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	154	41	15	71	12	9	109	29
LT Vol	3	0	35	0	64	0	9	0	0
Through Vol	0	102	6	0	7	0	0	109	0
RT Vol	0	52	0	15	0	12	0	0	29
Lane Flow Rate	3	173	55	20	92	16	12	145	39
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.006	0.254	0.096	0.029	0.158	0.022	0.02	0.222	0.051
Departure Headway (Hd)	6.028	5.287	6.231	5.099	6.173	5.018	5.99	5.487	4.783
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	590	673	570	693	576	705	593	650	741
Service Time	3.805	3.064	4.029	2.896	3.966	2.81	3.768	3.264	2.56
HCM Lane V/C Ratio	0.005	0.257	0.096	0.029	0.16	0.023	0.02	0.223	0.053
HCM Control Delay, s/veh	8.8	9.9	9.7	8.1	10.1	7.9	8.9	9.8	7.8
HCM Lane LOS	A	A	A	A	B	A	A	A	A
HCM 95th-tile Q	0	1	0.3	0.1	0.6	0.1	0.1	0.8	0.2

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			4	4	
Traffic Vol, veh/h	54	30	61	39	28	49
Future Vol, veh/h	54	30	61	39	28	49
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	72	72	71	71	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	42	86	55	41	71

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	303	76	112	0	0
Stage 1	76	-	-	-	-
Stage 2	227	-	-	-	-
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	689	985	1478	-	-
Stage 1	947	-	-	-	-
Stage 2	811	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	648	985	1478	-	-
Mov Cap-2 Maneuver	648	-	-	-	-
Stage 1	890	-	-	-	-
Stage 2	811	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.79	4.63	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1098	-	738	-	-
HCM Lane V/C Ratio	0.058	-	0.158	-	-
HCM Ctrl Dly (s/v)	7.6	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

HCM 7th Signalized Intersection Summary

1: Balsa Avenue & 29 Parlms Hwy/29 Palms Hwy

09/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↷		↶	↶↷		↶	↶↷		↶	↶	↶
Traffic Volume (veh/h)	8	552	28	31	605	18	53	23	11	34	20	21
Future Volume (veh/h)	8	552	28	31	605	18	53	23	11	34	20	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	8	581	29	33	637	19	56	24	12	36	21	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	785	39	57	887	26	674	1041	482	61	1015	860
Arrive On Green	0.01	0.23	0.23	0.03	0.25	0.25	0.44	0.44	0.44	0.04	0.54	0.54
Sat Flow, veh/h	1688	3445	172	1688	3523	105	1292	2358	1092	1688	1870	1585
Grp Volume(v), veh/h	8	299	311	33	321	335	56	18	18	36	21	22
Grp Sat Flow(s),veh/h/ln	1688	1777	1839	1688	1777	1851	1292	1777	1674	1688	1870	1585
Q Serve(g_s), s	0.3	10.8	10.8	1.3	11.4	11.4	1.7	0.4	0.4	1.5	0.4	0.4
Cycle Q Clear(g_c), s	0.3	10.8	10.8	1.3	11.4	11.4	1.7	0.4	0.4	1.5	0.4	0.4
Prop In Lane	1.00		0.09	1.00		0.06	1.00		0.65	1.00		1.00
Lane Grp Cap(c), veh/h	17	405	419	57	447	466	674	784	739	61	1015	860
V/C Ratio(X)	0.46	0.74	0.74	0.58	0.72	0.72	0.08	0.02	0.02	0.59	0.02	0.03
Avail Cap(c_a), veh/h	159	759	785	232	836	871	674	784	739	232	1015	860
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	34.0	24.8	24.8	32.9	23.6	23.6	11.3	10.9	10.9	32.8	7.3	7.3
Incr Delay (d2), s/veh	17.8	2.7	2.6	8.8	2.2	2.1	0.2	0.1	0.1	8.8	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	0.2	4.3	4.4	0.6	4.4	4.6	0.5	0.2	0.2	0.7	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.8	27.4	27.4	41.7	25.8	25.7	11.5	10.9	11.0	41.6	7.3	7.4
LnGrp LOS	D	C	C	D	C	C	B	B	B	D	A	A
Approach Vol, veh/h	618			689			92			79		
Approach Delay, s/veh	27.7			26.5			11.3			23.0		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	6	7	8					
Phs Duration (G+Y+Rc), s	7.0	35.0	6.8	20.3	42.0	5.2	21.9					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	9.5	23.5	9.5	29.5	37.5	6.5	32.5					
Max Q Clear Time (g_c+I1), s	3.5	3.7	3.3	12.8	2.4	2.3	13.4					
Green Ext Time (p_c), s	0.0	0.3	0.0	2.9	0.1	0.0	3.3					
Intersection Summary												
HCM 7th Control Delay, s/veh	25.9											
HCM 7th LOS	C											

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕	↗	↘	↕	↗		↕			↕	
Traffic Vol, veh/h	3	582	9	15	647	2	7	1	4	1	1	4
Future Vol, veh/h	3	582	9	15	647	2	7	1	4	1	1	4
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	100	-	50	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	613	9	16	681	2	7	1	4	1	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	683	0	0	622	0	0	992	1334	306	1026	1341	341
Stage 1	-	-	-	-	-	-	619	619	-	713	713	-
Stage 2	-	-	-	-	-	-	373	715	-	313	628	-
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	906	-	-	955	-	-	200	153	690	189	151	655
Stage 1	-	-	-	-	-	-	443	479	-	389	434	-
Stage 2	-	-	-	-	-	-	620	433	-	672	474	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	906	-	-	955	-	-	194	150	690	183	148	655
Mov Cap-2 Maneuver	-	-	-	-	-	-	194	150	-	183	148	-
Stage 1	-	-	-	-	-	-	441	477	-	383	427	-
Stage 2	-	-	-	-	-	-	604	426	-	664	472	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.05			0.2			20.38			16.21		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	247	906	-	-	955	-	-	327
HCM Lane V/C Ratio	0.051	0.003	-	-	0.017	-	-	0.019
HCM Ctrl Dly (s/v)	20.4	9	-	-	8.8	-	-	16.2
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

HCM 7th Signalized Intersection Summary

3: Avalon Ave & 29 Palms Hwy

09/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘↘	↗	↘	↘	↗	↘
Traffic Volume (veh/h)	10	525	54	47	583	7	55	19	40	17	31	17
Future Volume (veh/h)	10	525	54	47	583	7	55	19	40	17	31	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1772	1870	1870	1772	1870	1870	1673	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	11	553	57	49	614	7	58	20	42	18	33	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	842	376	78	957	427	159	747	633	36	691	586
Arrive On Green	0.01	0.24	0.24	0.05	0.27	0.27	0.05	0.40	0.40	0.02	0.37	0.37
Sat Flow, veh/h	1688	3554	1585	1688	3554	1585	3092	1870	1585	1688	1870	1585
Grp Volume(v), veh/h	11	553	57	49	614	7	58	20	42	18	33	18
Grp Sat Flow(s),veh/h/ln	1688	1777	1585	1688	1777	1585	1546	1870	1585	1688	1870	1585
Q Serve(g_s), s	0.4	8.6	1.7	1.7	9.3	0.2	1.1	0.4	1.0	0.6	0.7	0.4
Cycle Q Clear(g_c), s	0.4	8.6	1.7	1.7	9.3	0.2	1.1	0.4	1.0	0.6	0.7	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	24	842	376	78	957	427	159	747	633	36	691	586
V/C Ratio(X)	0.47	0.66	0.15	0.63	0.64	0.02	0.37	0.03	0.07	0.49	0.05	0.03
Avail Cap(c_a), veh/h	208	1781	794	319	2015	899	381	747	633	208	691	586
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	29.8	21.0	18.4	28.5	19.6	16.3	27.9	11.1	11.3	29.4	12.3	12.2
Incr Delay (d2), s/veh	13.7	0.9	0.2	8.0	0.7	0.0	1.4	0.1	0.2	10.0	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	0.2	3.4	0.6	0.8	3.3	0.1	0.4	0.2	0.3	0.3	0.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.5	21.9	18.6	36.5	20.4	16.3	29.3	11.2	11.5	39.5	12.4	12.3
LnGrp LOS	D	C	B	D	C	B	C	B	B	D	B	B
Approach Vol, veh/h		621			670			120				69
Approach Delay, s/veh		21.9			21.5			20.0				19.5
Approach LOS		C			C			C				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	28.8	7.3	18.9	7.6	27.0	5.3	20.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	22.5	11.5	30.5	7.5	22.5	7.5	34.5				
Max Q Clear Time (g_c+I1), s	2.6	3.0	3.7	10.6	3.1	2.7	2.4	11.3				
Green Ext Time (p_c), s	0.0	0.1	0.0	3.9	0.0	0.1	0.0	3.7				
Intersection Summary												
HCM 7th Control Delay, s/veh			21.5									
HCM 7th LOS			C									

HCM 7th Signalized Intersection Summary
 4: Walmart DRWY & 29 Palms Hwy/29 Palms Hwy

09/09/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	485	64	110	607	49	45
Future Volume (veh/h)	485	64	110	607	49	45
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1772	1870	1673	1870
Adj Flow Rate, veh/h	511	67	116	639	52	47
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	965	1037	151	1294	1438	737
Arrive On Green	0.19	0.19	0.09	0.36	0.47	0.47
Sat Flow, veh/h	5274	1585	1688	3647	3092	1585
Grp Volume(v), veh/h	511	67	116	639	52	47
Grp Sat Flow(s),veh/h/ln	1702	1585	1688	1777	1546	1585
Q Serve(g_s), s	4.8	0.8	3.5	7.3	0.5	0.9
Cycle Q Clear(g_c), s	4.8	0.8	3.5	7.3	0.5	0.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	965	1037	151	1294	1438	737
V/C Ratio(X)	0.53	0.06	0.77	0.49	0.04	0.06
Avail Cap(c_a), veh/h	2763	1595	753	3812	1438	737
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.2	3.3	23.4	13.0	7.7	7.8
Incr Delay (d2), s/veh	0.5	0.0	7.9	0.3	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6	0.6	1.5	2.2	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.7	3.3	31.4	13.3	7.7	7.9
LnGrp LOS	B	A	C	B	A	A
Approach Vol, veh/h	578			755	99	
Approach Delay, s/veh	17.8			16.1	7.8	
Approach LOS	B			B	A	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		29.0	9.2	14.5		23.7
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		24.5	23.5	28.5		56.5
Max Q Clear Time (g_c+I1), s		2.9	5.5	6.8		9.3
Green Ext Time (p_c), s		0.3	0.2	3.2		4.3
Intersection Summary						
HCM 7th Control Delay, s/veh			16.2			
HCM 7th LOS			B			

Intersection												
Intersection Delay, s/veh	8.6											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↔		↔	↔	↔
Traffic Vol, veh/h	19	3	4	29	6	8	20	101	50	5	85	39
Future Vol, veh/h	19	3	4	29	6	8	20	101	50	5	85	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	3	4	31	6	8	21	106	53	5	89	41
Number of Lanes	0	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	8.7		8.8	8.2
HCM LOS	A		A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	86%	0%	83%	0%	100%	0%	0%
Vol Thru, %	0%	67%	14%	0%	17%	0%	0%	100%	0%
Vol Right, %	0%	33%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	151	22	4	35	8	5	85	39
LT Vol	20	0	19	0	29	0	5	0	0
Through Vol	0	101	3	0	6	0	0	85	0
RT Vol	0	50	0	4	0	8	0	0	39
Lane Flow Rate	21	159	23	4	37	8	5	89	41
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.032	0.212	0.038	0.006	0.06	0.011	0.008	0.127	0.05
Departure Headway (Hd)	5.526	4.793	5.887	4.753	5.829	4.712	5.617	5.116	4.414
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	649	750	608	752	615	758	638	701	811
Service Time	3.251	2.518	3.624	2.489	3.564	2.447	3.345	2.844	2.142
HCM Lane V/C Ratio	0.032	0.212	0.038	0.005	0.06	0.011	0.008	0.127	0.051
HCM Control Delay, s/veh	8.4	8.8	8.9	7.5	8.9	7.5	8.4	8.6	7.4
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.1	0	0.2	0	0	0.4	0.2

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	32	28	21	19	41	46
Future Vol, veh/h	32	28	21	19	41	46
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	29	22	20	43	48

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	132	67	92	0	0
Stage 1	67	-	-	-	-
Stage 2	64	-	-	-	-
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	862	996	1503	-	-
Stage 1	955	-	-	-	-
Stage 2	958	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	850	996	1503	-	-
Mov Cap-2 Maneuver	850	-	-	-	-
Stage 1	941	-	-	-	-
Stage 2	958	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.24	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	945	-	912	-	-
HCM Lane V/C Ratio	0.015	-	0.069	-	-
HCM Ctrl Dly (s/v)	7.4	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 7th Signalized Intersection Summary

1: Balsa Avenue & 29 Parlms Hwy/29 Palms Hwy

09/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	↶
Traffic Volume (veh/h)	18	713	62	53	821	69	67	54	39	92	63	28
Future Volume (veh/h)	18	713	62	53	821	69	67	54	39	92	63	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	19	751	65	56	864	73	71	57	41	97	66	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	973	84	72	1049	89	486	659	431	121	836	708
Arrive On Green	0.02	0.31	0.31	0.05	0.33	0.33	0.34	0.34	0.34	0.08	0.47	0.47
Sat Flow, veh/h	1594	3135	271	1594	3142	265	1164	1950	1276	1594	1772	1502
Grp Volume(v), veh/h	19	403	413	56	463	474	71	48	50	97	66	29
Grp Sat Flow(s),veh/h/ln	1594	1683	1723	1594	1683	1724	1164	1683	1542	1594	1772	1502
Q Serve(g_s), s	0.9	16.9	17.0	2.7	19.7	19.7	3.4	1.5	1.7	4.7	1.6	0.8
Cycle Q Clear(g_c), s	0.9	16.9	17.0	2.7	19.7	19.7	3.4	1.5	1.7	4.7	1.6	0.8
Prop In Lane	1.00		0.16	1.00		0.15	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	34	522	535	72	562	575	486	569	521	121	836	708
V/C Ratio(X)	0.55	0.77	0.77	0.78	0.82	0.82	0.15	0.09	0.10	0.80	0.08	0.04
Avail Cap(c_a), veh/h	104	686	702	161	746	764	486	569	521	243	836	708
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	24.4	24.4	36.9	23.9	23.9	18.2	17.6	17.7	35.5	11.3	11.1
Incr Delay (d2), s/veh	13.0	4.0	3.9	16.5	5.7	5.5	0.6	0.3	0.4	11.4	0.2	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	6.5	6.6	1.3	7.7	7.8	1.0	0.6	0.6	2.2	0.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.8	28.4	28.3	53.4	29.5	29.4	18.8	17.9	18.0	46.9	11.5	11.2
LnGrp LOS	D	C	C	D	C	C	B	B	B	D	B	B
Approach Vol, veh/h		835			993			169			192	
Approach Delay, s/veh		28.8			30.8			18.3			29.3	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	6	7	8					
Phs Duration (G+Y+Rc), s	10.4	30.9	8.0	28.7	41.3	6.2	30.5					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	11.9	20.4	7.9	31.8	36.8	5.1	34.6					
Max Q Clear Time (g_c+I1), s	6.7	5.4	4.7	19.0	3.6	2.9	21.7					
Green Ext Time (p_c), s	0.1	0.6	0.0	3.7	0.4	0.0	4.3					
Intersection Summary												
HCM 7th Control Delay, s/veh			29.0									
HCM 7th LOS			C									

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↘		↔			↔	
Traffic Vol, veh/h	10	829	3	2	929	1	6	0	6	0	0	1
Future Vol, veh/h	10	829	3	2	929	1	6	0	6	0	0	1
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	100	-	50	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	873	3	2	978	1	6	0	6	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	979	0	0	876	0	0	1387	1877	436	1439	1879	489
Stage 1	-	-	-	-	-	-	894	894	-	982	982	-
Stage 2	-	-	-	-	-	-	493	983	-	457	897	-
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	701	-	-	767	-	-	102	71	568	93	71	525
Stage 1	-	-	-	-	-	-	302	358	-	267	325	-
Stage 2	-	-	-	-	-	-	526	325	-	553	357	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	701	-	-	767	-	-	100	69	568	91	69	525
Mov Cap-2 Maneuver	-	-	-	-	-	-	100	69	-	91	69	-
Stage 1	-	-	-	-	-	-	298	352	-	266	324	-
Stage 2	-	-	-	-	-	-	524	324	-	538	351	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.12			0.02			27.8			11.87		
HCM LOS							D			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	170	701	-	-	767	-	-	525
HCM Lane V/C Ratio	0.074	0.015	-	-	0.003	-	-	0.002
HCM Ctrl Dly (s/v)	27.8	10.2	-	-	9.7	-	-	11.9
HCM Lane LOS	D	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary

3: Avalon Ave & 29 Palms Hwy

09/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	24	714	104	54	791	43	114	44	32	14	19	16
Future Volume (veh/h)	24	714	104	54	791	43	114	44	32	14	19	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1772	1870	1870	1772	1870	1870	1673	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	25	752	109	57	833	45	120	46	34	15	20	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1073	478	83	1148	512	209	668	566	31	576	488
Arrive On Green	0.03	0.30	0.30	0.05	0.32	0.32	0.07	0.36	0.36	0.02	0.31	0.31
Sat Flow, veh/h	1688	3554	1585	1688	3554	1585	3092	1870	1585	1688	1870	1585
Grp Volume(v), veh/h	25	752	109	57	833	45	120	46	34	15	20	17
Grp Sat Flow(s),veh/h/ln	1688	1777	1585	1688	1777	1585	1546	1870	1585	1688	1870	1585
Q Serve(g_s), s	1.0	12.3	3.4	2.2	13.6	1.3	2.5	1.1	0.9	0.6	0.5	0.5
Cycle Q Clear(g_c), s	1.0	12.3	3.4	2.2	13.6	1.3	2.5	1.1	0.9	0.6	0.5	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	1073	478	83	1148	512	209	668	566	31	576	488
V/C Ratio(X)	0.53	0.70	0.23	0.69	0.73	0.09	0.57	0.07	0.06	0.49	0.03	0.03
Avail Cap(c_a), veh/h	192	1809	807	244	1918	855	446	668	566	141	576	488
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	31.6	20.3	17.2	30.8	19.7	15.5	29.8	13.9	13.9	32.0	15.9	15.9
Incr Delay (d2), s/veh	9.0	0.8	0.2	9.6	0.9	0.1	2.5	0.2	0.2	11.5	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	0.5	4.8	1.1	1.0	4.8	0.4	0.9	0.4	0.3	0.3	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.6	21.2	17.5	40.4	20.6	15.6	32.2	14.1	14.1	43.5	16.0	16.1
LnGrp LOS	D	C	B	D	C	B	C	B	B	D	B	B
Approach Vol, veh/h	886			935			200			52		
Approach Delay, s/veh	21.3			21.5			25.0			24.0		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	28.0	7.7	24.4	8.9	24.8	6.3	25.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	23.5	9.5	33.5	9.5	19.5	7.5	35.5				
Max Q Clear Time (g_c+I1), s	2.6	3.1	4.2	14.3	4.5	2.5	3.0	15.6				
Green Ext Time (p_c), s	0.0	0.2	0.0	5.5	0.1	0.1	0.0	5.2				
Intersection Summary												
HCM 7th Control Delay, s/veh	21.8											
HCM 7th LOS	C											

HCM 7th Signalized Intersection Summary
 4: Walmart DRWY & 29 Palms Hwy/29 Palms Hwy

09/09/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	653	95	147	767	122	130
Future Volume (veh/h)	653	95	147	767	122	130
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1772	1870	1673	1870
Adj Flow Rate, veh/h	687	100	155	807	128	137
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1147	1037	200	1489	1328	681
Arrive On Green	0.22	0.22	0.12	0.42	0.43	0.43
Sat Flow, veh/h	5274	1585	1688	3647	3092	1585
Grp Volume(v), veh/h	687	100	155	807	128	137
Grp Sat Flow(s),veh/h/ln	1702	1585	1688	1777	1546	1585
Q Serve(g_s), s	7.2	1.4	5.3	10.1	1.5	3.2
Cycle Q Clear(g_c), s	7.2	1.4	5.3	10.1	1.5	3.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1147	1037	200	1489	1328	681
V/C Ratio(X)	0.60	0.10	0.78	0.54	0.10	0.20
Avail Cap(c_a), veh/h	2279	1388	696	3322	1328	681
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	20.6	3.8	25.4	13.0	10.1	10.6
Incr Delay (d2), s/veh	0.5	0.0	6.3	0.3	0.1	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.0	2.2	3.1	0.5	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.1	3.8	31.7	13.3	10.2	11.2
LnGrp LOS	C	A	C	B	B	B
Approach Vol, veh/h	787			962	265	
Approach Delay, s/veh	18.9			16.2	10.7	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		30.0	11.5	17.8		29.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		25.5	24.5	26.5		55.5
Max Q Clear Time (g_c+I1), s		5.2	7.3	9.2		12.1
Green Ext Time (p_c), s		0.8	0.3	4.2		5.7
Intersection Summary						
HCM 7th Control Delay, s/veh			16.6			
HCM 7th LOS			B			

Intersection												
Intersection Delay, s/veh	9.2											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↔		↔	↔	↔
Traffic Vol, veh/h	36	6	15	65	7	12	3	104	53	9	111	30
Future Vol, veh/h	36	6	15	65	7	12	3	104	53	9	111	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	6	16	68	7	13	3	109	56	9	117	32
Number of Lanes	0	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	8.9		8.9	
HCM LOS	A		A	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	86%	0%	90%	0%	100%	0%	0%
Vol Thru, %	0%	66%	14%	0%	10%	0%	0%	100%	0%
Vol Right, %	0%	34%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	157	42	15	72	12	9	111	30
LT Vol	3	0	36	0	65	0	9	0	0
Through Vol	0	104	6	0	7	0	0	111	0
RT Vol	0	53	0	15	0	12	0	0	30
Lane Flow Rate	3	165	44	16	76	13	9	117	32
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.005	0.234	0.074	0.022	0.126	0.017	0.015	0.174	0.041
Departure Headway (Hd)	5.83	5.091	6.051	4.918	6.004	4.849	5.85	5.348	4.644
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	613	702	589	723	595	734	610	668	767
Service Time	3.578	2.838	3.816	2.682	3.765	2.609	3.6	3.098	2.394
HCM Lane V/C Ratio	0.005	0.235	0.075	0.022	0.128	0.018	0.015	0.175	0.042
HCM Control Delay, s/veh	8.6	9.4	9.3	7.8	9.6	7.7	8.7	9.2	7.6
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0.9	0.2	0.1	0.4	0.1	0	0.6	0.1

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	55	31	62	40	29	50
Future Vol, veh/h	55	31	62	40	29	50
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	33	65	42	31	53

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	229	57	83	0	-	0
Stage 1	57	-	-	-	-	-
Stage 2	173	-	-	-	-	-
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	759	1009	1514	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	725	1009	1514	-	-	-
Mov Cap-2 Maneuver	725	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	858	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.02	4.55	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1094	-	807	-	-
HCM Lane V/C Ratio	0.043	-	0.112	-	-
HCM Ctrl Dly (s/v)	7.5	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

HCM 7th Signalized Intersection Summary

1: Balsa Avenue & 29 Parlms Hwy/29 Palms Hwy

09/10/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	↶
Traffic Volume (veh/h)	8	577	28	32	630	18	53	23	12	34	20	21
Future Volume (veh/h)	8	577	28	32	630	18	53	23	12	34	20	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	607	29	34	663	19	56	24	13	36	21	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	795	38	55	893	26	629	939	468	57	941	798
Arrive On Green	0.01	0.24	0.24	0.03	0.27	0.27	0.43	0.43	0.43	0.04	0.53	0.53
Sat Flow, veh/h	1594	3271	156	1594	3342	96	1220	2175	1085	1594	1772	1502
Grp Volume(v), veh/h	8	312	324	34	334	348	56	18	19	36	21	22
Grp Sat Flow(s),veh/h/ln	1594	1683	1744	1594	1683	1755	1220	1683	1577	1594	1772	1502
Q Serve(g_s), s	0.4	12.2	12.2	1.5	12.8	12.8	1.9	0.4	0.5	1.6	0.4	0.5
Cycle Q Clear(g_c), s	0.4	12.2	12.2	1.5	12.8	12.8	1.9	0.4	0.5	1.6	0.4	0.5
Prop In Lane	1.00		0.09	1.00		0.05	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	16	409	424	55	450	469	629	727	681	57	941	798
V/C Ratio(X)	0.49	0.76	0.76	0.62	0.74	0.74	0.09	0.02	0.03	0.63	0.02	0.03
Avail Cap(c_a), veh/h	147	704	729	215	775	808	629	727	681	215	941	798
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	34.7	24.8	24.8	33.6	23.6	23.6	11.9	11.5	11.5	33.6	7.8	7.9
Incr Delay (d2), s/veh	20.8	3.0	2.9	10.8	2.4	2.3	0.3	0.1	0.1	10.9	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	0.2	4.6	4.7	0.7	4.7	4.9	0.5	0.2	0.2	0.8	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.5	27.8	27.7	44.4	26.1	26.0	12.2	11.6	11.6	44.4	7.9	7.9
LnGrp LOS	E	C	C	D	C	C	B	B	B	D	A	A
Approach Vol, veh/h		644			716			93			79	
Approach Delay, s/veh		28.1			26.9			12.0			24.6	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	6	7	8					
Phs Duration (G+Y+Rc), s	7.0	35.0	6.9	21.7	42.0	5.2	23.4					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	9.5	23.5	9.5	29.5	37.5	6.5	32.5					
Max Q Clear Time (g_c+I1), s	3.6	3.9	3.5	14.2	2.5	2.4	14.8					
Green Ext Time (p_c), s	0.0	0.3	0.0	3.0	0.1	0.0	3.4					
Intersection Summary												
HCM 7th Control Delay, s/veh			26.4									
HCM 7th LOS			C									

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕	↗	↘	↕	↗		↕			↕	
Traffic Vol, veh/h	5	606	9	15	671	2	7	1	4	1	1	6
Future Vol, veh/h	5	606	9	15	671	2	7	1	4	1	1	6
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	100	-	50	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	638	9	16	706	2	7	1	4	1	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	708	0	0	647	0	0	1034	1388	319	1068	1396	353
Stage 1	-	-	-	-	-	-	648	648	-	738	738	-
Stage 2	-	-	-	-	-	-	385	740	-	330	658	-
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	886	-	-	934	-	-	186	141	677	176	140	643
Stage 1	-	-	-	-	-	-	425	464	-	376	422	-
Stage 2	-	-	-	-	-	-	610	421	-	657	459	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	886	-	-	934	-	-	179	138	677	170	137	643
Mov Cap-2 Maneuver	-	-	-	-	-	-	179	138	-	170	137	-
Stage 1	-	-	-	-	-	-	423	461	-	369	415	-
Stage 2	-	-	-	-	-	-	592	414	-	648	457	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.07			0.19			21.58			15.39		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	230	886	-	-	934	-	-	355
HCM Lane V/C Ratio	0.055	0.006	-	-	0.017	-	-	0.024
HCM Ctrl Dly (s/v)	21.6	9.1	-	-	8.9	-	-	15.4
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

HCM 7th Signalized Intersection Summary

3: Avalon Ave & 29 Palms Hwy

09/10/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	121	439	54	47	592	7	60	24	40	113	40	17
Future Volume (veh/h)	121	439	54	47	592	7	60	24	40	113	40	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1772	1870	1870	1772	1870	1870	1673	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	127	462	57	49	623	7	63	25	42	119	42	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	1037	463	74	860	384	156	599	507	149	669	567
Arrive On Green	0.09	0.29	0.29	0.04	0.24	0.24	0.05	0.32	0.32	0.09	0.36	0.36
Sat Flow, veh/h	1688	3554	1585	1688	3554	1585	3092	1870	1585	1688	1870	1585
Grp Volume(v), veh/h	127	462	57	49	623	7	63	25	42	119	42	18
Grp Sat Flow(s),veh/h/ln	1688	1777	1585	1688	1777	1585	1546	1870	1585	1688	1870	1585
Q Serve(g_s), s	5.2	7.4	1.9	2.0	11.3	0.2	1.4	0.6	1.3	4.9	1.0	0.5
Cycle Q Clear(g_c), s	5.2	7.4	1.9	2.0	11.3	0.2	1.4	0.6	1.3	4.9	1.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	1037	463	74	860	384	156	599	507	149	669	567
V/C Ratio(X)	0.80	0.45	0.12	0.66	0.72	0.02	0.40	0.04	0.08	0.80	0.06	0.03
Avail Cap(c_a), veh/h	180	1541	688	276	1744	778	330	599	507	180	669	567
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	31.2	20.3	18.3	33.1	24.5	20.3	32.4	16.5	16.7	31.4	14.8	14.7
Incr Delay (d2), s/veh	20.3	0.3	0.1	9.7	1.2	0.0	1.7	0.1	0.3	18.6	0.2	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	2.9	2.9	0.6	1.0	4.3	0.1	0.5	0.3	0.5	2.7	0.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.5	20.6	18.4	42.8	25.7	20.3	34.1	16.6	17.0	50.1	15.0	14.8
LnGrp LOS	D	C	B	D	C	C	C	B	B	D	B	B
Approach Vol, veh/h		646			679			130			179	
Approach Delay, s/veh		26.5			26.9			25.2			38.3	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	27.0	7.6	25.0	8.0	29.7	11.1	21.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	22.5	11.5	30.5	7.5	22.5	7.5	34.5				
Max Q Clear Time (g_c+I1), s	6.9	3.3	4.0	9.4	3.4	3.0	7.2	13.3				
Green Ext Time (p_c), s	0.0	0.2	0.0	3.2	0.0	0.2	0.0	3.7				
Intersection Summary												
HCM 7th Control Delay, s/veh			27.8									
HCM 7th LOS			C									

HCM 7th Signalized Intersection Summary
 4: Walmart DRWY & 29 Palms Hwy/29 Palms Hwy

09/10/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	494	64	110	616	49	45
Future Volume (veh/h)	494	64	110	616	49	45
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1772	1870	1673	1870
Adj Flow Rate, veh/h	520	67	116	648	52	47
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	977	1038	151	1301	1434	735
Arrive On Green	0.19	0.19	0.09	0.37	0.46	0.46
Sat Flow, veh/h	5274	1585	1688	3647	3092	1585
Grp Volume(v), veh/h	520	67	116	648	52	47
Grp Sat Flow(s),veh/h/ln	1702	1585	1688	1777	1546	1585
Q Serve(g_s), s	4.8	0.8	3.6	7.5	0.5	0.9
Cycle Q Clear(g_c), s	4.8	0.8	3.6	7.5	0.5	0.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	977	1038	151	1301	1434	735
V/C Ratio(X)	0.53	0.06	0.77	0.50	0.04	0.06
Avail Cap(c_a), veh/h	2754	1590	751	3800	1434	735
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.2	3.3	23.5	13.0	7.7	7.8
Incr Delay (d2), s/veh	0.5	0.0	7.9	0.3	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6	0.6	1.5	2.2	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.7	3.3	31.4	13.3	7.8	8.0
LnGrp LOS	B	A	C	B	A	A
Approach Vol, veh/h	587			764	99	
Approach Delay, s/veh	17.8			16.0	7.9	
Approach LOS	B			B	A	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		29.0	9.2	14.6		23.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		24.5	23.5	28.5		56.5
Max Q Clear Time (g_c+I1), s		2.9	5.6	6.8		9.5
Green Ext Time (p_c), s		0.3	0.2	3.3		4.3
Intersection Summary						
HCM 7th Control Delay, s/veh			16.2			
HCM 7th LOS			B			

Intersection

Intersection Delay, s/veh 8.7

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↔		↔	↔	↔
Traffic Vol, veh/h	19	3	4	29	6	8	20	110	50	5	94	39
Future Vol, veh/h	19	3	4	29	6	8	20	110	50	5	94	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	3	4	31	6	8	21	116	53	5	99	41
Number of Lanes	0	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	8.7	8.7	8.9	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	86%	0%	83%	0%	100%	0%	0%
Vol Thru, %	0%	69%	14%	0%	17%	0%	0%	100%	0%
Vol Right, %	0%	31%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	160	22	4	35	8	5	94	39
LT Vol	20	0	19	0	29	0	5	0	0
Through Vol	0	110	3	0	6	0	0	94	0
RT Vol	0	50	0	4	0	8	0	0	39
Lane Flow Rate	21	168	23	4	37	8	5	99	41
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.032	0.226	0.038	0.006	0.06	0.011	0.008	0.141	0.051
Departure Headway (Hd)	5.545	4.825	5.937	4.802	5.879	4.762	5.637	5.135	4.433
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	646	744	602	743	609	750	635	699	807
Service Time	3.273	2.552	3.68	2.544	3.62	2.503	3.366	2.865	2.163
HCM Lane V/C Ratio	0.033	0.226	0.038	0.005	0.061	0.011	0.008	0.142	0.051
HCM Control Delay, s/veh	8.5	9	8.9	7.6	9	7.6	8.4	8.7	7.4
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.1	0	0.2	0	0	0.5	0.2

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			4	4	
Traffic Vol, veh/h	32	28	21	20	42	46
Future Vol, veh/h	32	28	21	20	42	46
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	29	22	21	44	48

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	134	68	93	0	0
Stage 1	68	-	-	-	-
Stage 2	65	-	-	-	-
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	860	995	1502	-	-
Stage 1	954	-	-	-	-
Stage 2	957	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	847	995	1502	-	-
Mov Cap-2 Maneuver	847	-	-	-	-
Stage 1	940	-	-	-	-
Stage 2	957	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.25	3.81	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	922	-	910	-	-
HCM Lane V/C Ratio	0.015	-	0.069	-	-
HCM Ctrl Dly (s/v)	7.4	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑			↑
Traffic Vol, veh/h	0	614	598	72	0	82
Future Vol, veh/h	0	614	598	72	0	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	646	629	76	0	86

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	11.46
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	644
HCM Lane V/C Ratio	-	-	-	0.134
HCM Ctrl Dly (s/v)	-	-	-	11.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Intersection						
Int Delay, s/veh	5.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			4	4	
Traffic Vol, veh/h	1	104	114	37	68	1
Future Vol, veh/h	1	104	114	37	68	1
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	109	120	39	72	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	351	72	73	0	0
Stage 1	72	-	-	-	-
Stage 2	279	-	-	-	-
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	646	990	1527	-	-
Stage 1	951	-	-	-	-
Stage 2	768	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	594	990	1527	-	-
Mov Cap-2 Maneuver	594	-	-	-	-
Stage 1	874	-	-	-	-
Stage 2	768	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.12	5.71	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1359	-	984	-	-
HCM Lane V/C Ratio	0.079	-	0.112	-	-
HCM Ctrl Dly (s/v)	7.6	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	-	-

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	2	0	0	2	0	0
Future Vol, veh/h	2	0	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	0	2	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	1	-	-	-	-	-
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	1021	1084	-	-	1620	-
Stage 1	1022	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1021	1084	-	-	1620	-
Mov Cap-2 Maneuver	1021	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.53	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1021	1620
HCM Lane V/C Ratio	-	-	0.002	-
HCM Ctrl Dly (s/v)	-	-	8.5	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 7th Signalized Intersection Summary

1: Balsa Avenue & 29 Parlms Hwy/29 Palms Hwy

09/10/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	↶
Traffic Volume (veh/h)	18	735	62	54	843	69	67	54	40	92	63	28
Future Volume (veh/h)	18	735	62	54	843	69	67	54	40	92	63	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	19	774	65	57	887	73	71	57	42	97	66	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	993	83	72	1069	88	481	646	432	121	828	702
Arrive On Green	0.02	0.32	0.32	0.05	0.34	0.34	0.33	0.33	0.33	0.08	0.47	0.47
Sat Flow, veh/h	1594	3144	264	1594	3149	259	1164	1931	1292	1594	1772	1502
Grp Volume(v), veh/h	19	414	425	57	474	486	71	49	50	97	66	29
Grp Sat Flow(s),veh/h/ln	1594	1683	1724	1594	1683	1725	1164	1683	1539	1594	1772	1502
Q Serve(g_s), s	0.9	17.6	17.6	2.8	20.4	20.4	3.4	1.6	1.8	4.7	1.6	0.8
Cycle Q Clear(g_c), s	0.9	17.6	17.6	2.8	20.4	20.4	3.4	1.6	1.8	4.7	1.6	0.8
Prop In Lane	1.00		0.15	1.00		0.15	1.00		0.84	1.00		1.00
Lane Grp Cap(c), veh/h	34	531	544	72	571	585	481	563	515	121	828	702
V/C Ratio(X)	0.55	0.78	0.78	0.79	0.83	0.83	0.15	0.09	0.10	0.80	0.08	0.04
Avail Cap(c_a), veh/h	103	680	697	160	740	758	481	563	515	241	828	702
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	38.1	24.4	24.5	37.2	23.9	23.9	18.6	18.0	18.0	35.8	11.6	11.4
Incr Delay (d2), s/veh	13.1	4.4	4.4	17.2	6.2	6.1	0.6	0.3	0.4	11.5	0.2	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	6.8	6.9	1.4	8.0	8.2	1.0	0.6	0.7	2.2	0.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.2	28.9	28.8	54.4	30.1	30.0	19.2	18.3	18.4	47.2	11.8	11.5
LnGrp LOS	D	C	C	D	C	C	B	B	B	D	B	B
Approach Vol, veh/h		858			1017			170			192	
Approach Delay, s/veh		29.3			31.4			18.7			29.6	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	10.5	30.8	8.1	29.3		41.3	6.2	31.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.9	20.4	7.9	31.8		36.8	5.1	34.6				
Max Q Clear Time (g_c+I1), s	6.7	5.4	4.8	19.6		3.6	2.9	22.4				
Green Ext Time (p_c), s	0.1	0.6	0.0	3.7		0.4	0.0	4.3				
Intersection Summary												
HCM 7th Control Delay, s/veh			29.5									
HCM 7th LOS			C									

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↘		↔			↔	
Traffic Vol, veh/h	12	850	3	2	950	1	6	0	6	0	0	3
Future Vol, veh/h	12	850	3	2	950	1	6	0	6	0	0	3
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	100	-	50	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	895	3	2	1000	1	6	0	6	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1001	0	0	898	0	0	1424	1925	447	1477	1927	500
Stage 1	-	-	-	-	-	-	920	920	-	1004	1004	-
Stage 2	-	-	-	-	-	-	504	1005	-	473	923	-
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	687	-	-	752	-	-	96	66	559	88	66	516
Stage 1	-	-	-	-	-	-	292	348	-	259	318	-
Stage 2	-	-	-	-	-	-	518	317	-	541	347	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	687	-	-	752	-	-	93	65	559	85	64	516
Mov Cap-2 Maneuver	-	-	-	-	-	-	93	65	-	85	64	-
Stage 1	-	-	-	-	-	-	286	341	-	258	317	-
Stage 2	-	-	-	-	-	-	514	316	-	525	340	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.14			0.02			29.42			12.02		
HCM LOS							D			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	160	687	-	-	752	-	-	516
HCM Lane V/C Ratio	0.079	0.018	-	-	0.003	-	-	0.006
HCM Ctrl Dly (s/v)	29.4	10.3	-	-	9.8	-	-	12
HCM Lane LOS	D	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary

3: Avalon Ave & 29 Palms Hwy

09/10/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘↘	↗	↘	↘	↗	↘
Traffic Volume (veh/h)	117	643	104	54	799	43	118	48	32	94	27	16
Future Volume (veh/h)	117	643	104	54	799	43	118	48	32	94	27	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1772	1870	1870	1772	1870	1870	1673	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	123	677	109	57	841	45	124	51	34	99	28	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	1242	554	77	1083	483	191	566	479	119	582	493
Arrive On Green	0.09	0.35	0.35	0.05	0.30	0.30	0.06	0.30	0.30	0.07	0.31	0.31
Sat Flow, veh/h	1688	3554	1585	1688	3554	1585	3092	1870	1585	1688	1870	1585
Grp Volume(v), veh/h	123	677	109	57	841	45	124	51	34	99	28	17
Grp Sat Flow(s),veh/h/ln	1688	1777	1585	1688	1777	1585	1546	1870	1585	1688	1870	1585
Q Serve(g_s), s	5.6	11.9	3.7	2.6	16.7	1.6	3.0	1.5	1.2	4.5	0.8	0.6
Cycle Q Clear(g_c), s	5.6	11.9	3.7	2.6	16.7	1.6	3.0	1.5	1.2	4.5	0.8	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	153	1242	554	77	1083	483	191	566	479	119	582	493
V/C Ratio(X)	0.81	0.55	0.20	0.74	0.78	0.09	0.65	0.09	0.07	0.83	0.05	0.03
Avail Cap(c_a), veh/h	163	1532	683	206	1624	724	378	566	479	119	582	493
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	34.7	20.3	17.7	36.6	24.6	19.3	35.6	19.4	19.3	35.6	18.7	18.6
Incr Delay (d2), s/veh	23.8	0.4	0.2	13.1	1.4	0.1	3.6	0.3	0.3	36.3	0.2	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	3.2	4.7	1.2	1.3	6.4	0.5	1.2	0.7	0.4	3.0	0.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.4	20.7	17.8	49.7	26.0	19.4	39.3	19.7	19.6	71.9	18.9	18.8
LnGrp LOS	E	C	B	D	C	B	D	B	B	E	B	B
Approach Vol, veh/h		909			943			209			144	
Approach Delay, s/veh		25.4			27.1			31.3			55.3	
Approach LOS		C			C			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	28.0	8.0	31.7	9.3	28.7	11.5	28.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	23.5	9.5	33.5	9.5	19.5	7.5	35.5				
Max Q Clear Time (g_c+I1), s	6.5	3.5	4.6	13.9	5.0	2.8	7.6	18.7				
Green Ext Time (p_c), s	0.0	0.3	0.0	5.0	0.1	0.1	0.0	4.9				
Intersection Summary												
HCM 7th Control Delay, s/veh			28.7									
HCM 7th LOS			C									

HCM 7th Signalized Intersection Summary
 4: Walmart DRWY & 29 Palms Hwy/29 Palms Hwy

09/10/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	661	95	147	775	122	130
Future Volume (veh/h)	661	95	147	775	122	130
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1772	1870	1673	1870
Adj Flow Rate, veh/h	696	100	155	816	128	137
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1157	1038	200	1495	1324	679
Arrive On Green	0.23	0.23	0.12	0.42	0.43	0.43
Sat Flow, veh/h	5274	1585	1688	3647	3092	1585
Grp Volume(v), veh/h	696	100	155	816	128	137
Grp Sat Flow(s),veh/h/ln	1702	1585	1688	1777	1546	1585
Q Serve(g_s), s	7.3	1.4	5.3	10.3	1.5	3.2
Cycle Q Clear(g_c), s	7.3	1.4	5.3	10.3	1.5	3.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1157	1038	200	1495	1324	679
V/C Ratio(X)	0.60	0.10	0.78	0.55	0.10	0.20
Avail Cap(c_a), veh/h	2272	1384	694	3312	1324	679
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	20.6	3.8	25.5	13.0	10.2	10.7
Incr Delay (d2), s/veh	0.5	0.0	6.3	0.3	0.1	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.0	2.2	3.1	0.5	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.1	3.8	31.8	13.3	10.3	11.3
LnGrp LOS	C	A	C	B	B	B
Approach Vol, veh/h	796			971	265	
Approach Delay, s/veh	19.0			16.2	10.8	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		30.0	11.6	18.0		29.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		25.5	24.5	26.5		55.5
Max Q Clear Time (g_c+I1), s		5.2	7.3	9.3		12.3
Green Ext Time (p_c), s		0.8	0.3	4.2		5.8
Intersection Summary						
HCM 7th Control Delay, s/veh			16.6			
HCM 7th LOS			B			

Intersection												
Intersection Delay, s/veh	9.3											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↔		↔	↔	↔
Traffic Vol, veh/h	36	6	15	65	7	12	3	112	53	9	119	30
Future Vol, veh/h	36	6	15	65	7	12	3	112	53	9	119	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	6	16	68	7	13	3	118	56	9	125	32
Number of Lanes	0	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	9	9.4	9.6	9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	86%	0%	90%	0%	100%	0%	0%
Vol Thru, %	0%	68%	14%	0%	10%	0%	0%	100%	0%
Vol Right, %	0%	32%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	165	42	15	72	12	9	119	30
LT Vol	3	0	36	0	65	0	9	0	0
Through Vol	0	112	6	0	7	0	0	119	0
RT Vol	0	53	0	15	0	12	0	0	30
Lane Flow Rate	3	174	44	16	76	13	9	125	32
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.005	0.247	0.075	0.022	0.127	0.017	0.015	0.187	0.041
Departure Headway (Hd)	5.85	5.122	6.099	4.966	6.05	4.895	5.87	5.368	4.665
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	610	698	584	715	590	726	608	666	764
Service Time	3.601	2.873	3.868	2.734	3.817	2.661	3.624	3.122	2.418
HCM Lane V/C Ratio	0.005	0.249	0.075	0.022	0.129	0.018	0.015	0.188	0.042
HCM Control Delay, s/veh	8.6	9.6	9.4	7.8	9.7	7.7	8.7	9.4	7.6
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	1	0.2	0.1	0.4	0.1	0	0.7	0.1

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			4	4	
Traffic Vol, veh/h	55	31	62	41	30	50
Future Vol, veh/h	55	31	62	41	30	50
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	33	65	43	32	53

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	232	58	84	0	0
Stage 1	58	-	-	-	-
Stage 2	174	-	-	-	-
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	757	1008	1513	-	-
Stage 1	965	-	-	-	-
Stage 2	857	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	723	1008	1513	-	-
Mov Cap-2 Maneuver	723	-	-	-	-
Stage 1	922	-	-	-	-
Stage 2	857	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.04	4.51	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1083	-	805	-	-
HCM Lane V/C Ratio	0.043	-	0.112	-	-
HCM Ctrl Dly (s/v)	7.5	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑			↑
Traffic Vol, veh/h	0	864	873	60	0	69
Future Vol, veh/h	0	864	873	60	0	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	909	919	63	0	73

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 491
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.32
Pot Cap-1 Maneuver	0	-	- 0 523
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 523
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	12.99
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	523
HCM Lane V/C Ratio	-	-	-	0.139
HCM Ctrl Dly (s/v)	-	-	-	13
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			4	4	
Traffic Vol, veh/h	1	87	96	111	59	1
Future Vol, veh/h	1	87	96	111	59	1
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	92	101	117	62	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	382	63	63	0	0
Stage 1	63	-	-	-	-
Stage 2	319	-	-	-	-
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	1002	1539	-	-
Stage 1	960	-	-	-	-
Stage 2	737	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	577	1002	1539	-	-
Mov Cap-2 Maneuver	577	-	-	-	-
Stage 1	893	-	-	-	-
Stage 2	737	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.99	3.48	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	835	-	994	-	-
HCM Lane V/C Ratio	0.066	-	0.093	-	-
HCM Ctrl Dly (s/v)	7.5	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	2	0	0	2	0	0
Future Vol, veh/h	2	0	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	0	2	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	1	-	-	-	-	-
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	1021	1084	-	-	1620	-
Stage 1	1022	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1021	1084	-	-	1620	-
Mov Cap-2 Maneuver	1021	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.53	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1021	1620
HCM Lane V/C Ratio	-	-	0.002	-
HCM Ctrl Dly (s/v)	-	-	8.5	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0