

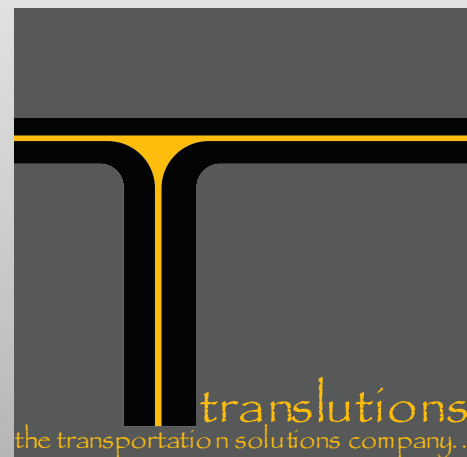
MAPLE AVENUE AND
FOOTHILL BOULEVARD
RESIDENTIAL
TRAFFIC IMPACT ANALYSIS

MAY 16, 2025

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1.0 EXECUTIVE SUMMARY

The following Executive Summary includes a summary of the LOS analyses prepared for the proposed Maple Avenue and Foothill Boulevard residential development project.

1.1 LOS Analysis Summary

Under existing conditions, all study area intersections are currently operating at satisfactory levels of service. Under opening year (2025) without and with project conditions, all study area intersections are forecast to operate at satisfactory levels of service. Under future build-out year (2045) without and with project conditions, all study area intersections are forecast to operate at satisfactory levels of service.

2.0 INTRODUCTION

This report presents the methodology, findings, and conclusions of the Traffic Impact Analysis (TIA) prepared for the proposed Maple Avenue and Foothill Boulevard residential development project. The proposed project site is located on the northwest corner of Maple Avenue and Foothill Boulevard in the City of Fontana. The project proposes the construction of 270 multi-family dwelling units.

2.1 Purpose of the Traffic Study and Study Objectives

This report is intended to satisfy the requirements for a TIA established by the City of Fontana *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment*, October 2020 (Guidelines) and the San Bernardino County Congestion Management Program (CMP), adopted November 3, 1993, and last revised in 2016. The San Bernardino County CMP is implemented by the San Bernardino County Transportation Authority (SBCTA, previously San Bernardino Associated Governments). The City has adopted vehicle LOS policies that set standards for which local agency infrastructure will strive to maintain. These policies are contained in the General Plan and apply to discretionary approvals of new land use and transportation projects.

The City guidelines require analysis of off-site intersections potentially affected by the project, which the City defines as intersections at which the project is forecast to add 50 or more peak hour trips (two-way). This report evaluates four intersections and project driveways under five analysis scenarios. The analysis intersections were approved by the City during the scoping process and is included in Appendix A. In addition, this report also evaluates alternative modes of travel in the vicinity of the project.

2.2 Project Location & Study Area

As stated earlier, the project is located on the northeast corner of Maple Avenue and Foothill Boulevard in the City of Fontana. Figure 1 shows the regional location of the project. The project proposes 270 multi-family dwelling units. The project opening year is anticipated to be 2025. Figure 2 illustrates the site plan of the proposed project.

Based on the trip generation and trip distribution of the proposed project, and based on discussion with City staff, this report analyzes the following intersections for traffic operations:

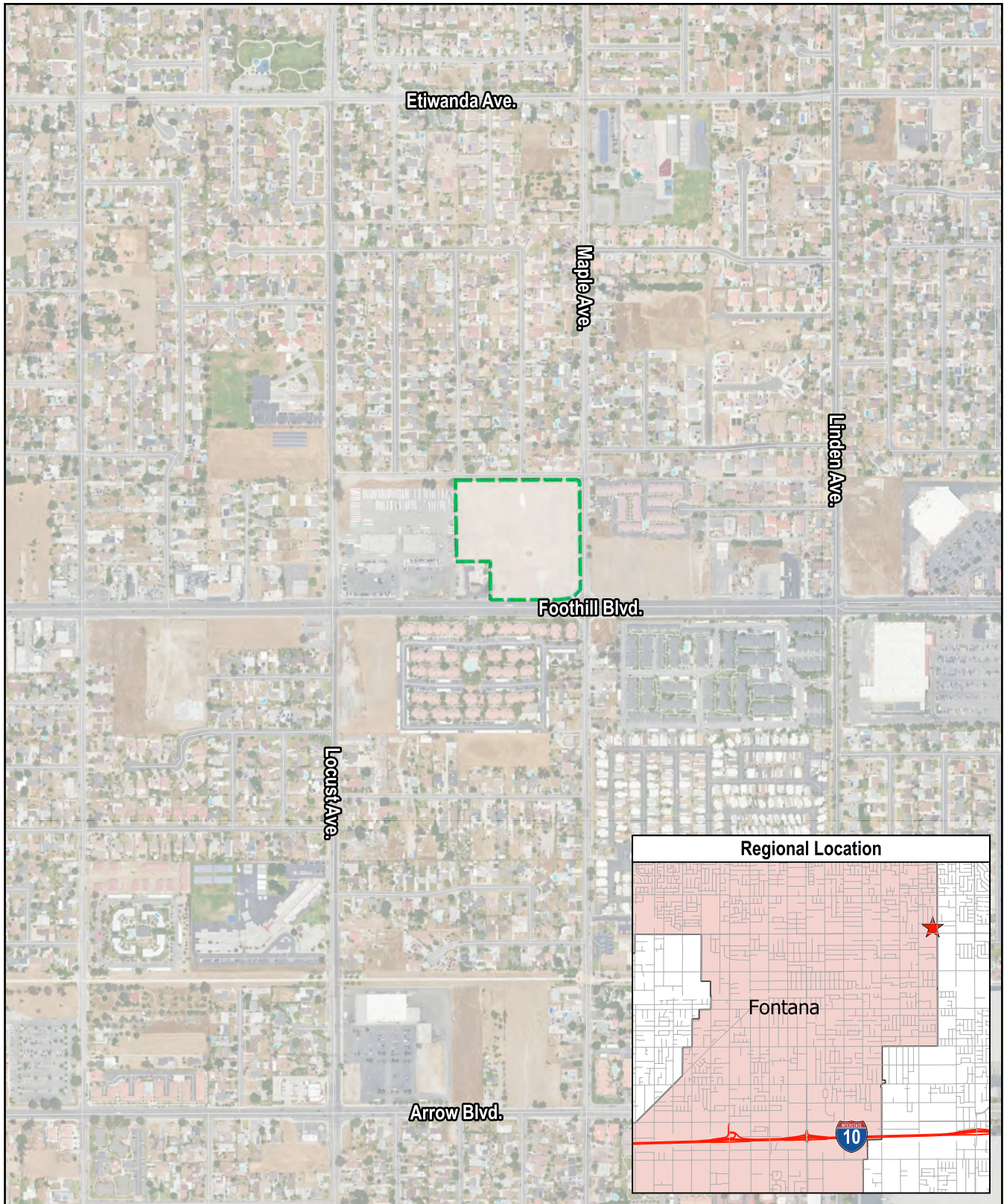
1. Driveway 1 and Foothill Boulevard (Fontana).
2. Maple Avenue and Etiwanda Avenue (Fontana/Rialto).
3. Maple Avenue and Driveway 2 (Fontana).
4. Maple Avenue and Foothill Boulevard (Fontana/Rialto).

Figure 3 illustrates the study intersections included in the analysis.

2.3 Analysis Scenarios

Based on the City guidelines, this report analyzes traffic conditions for the following scenarios:

1. Existing Conditions,
2. Opening Year (2025) Without Project Conditions,
3. Opening Year (2025) With Project Conditions

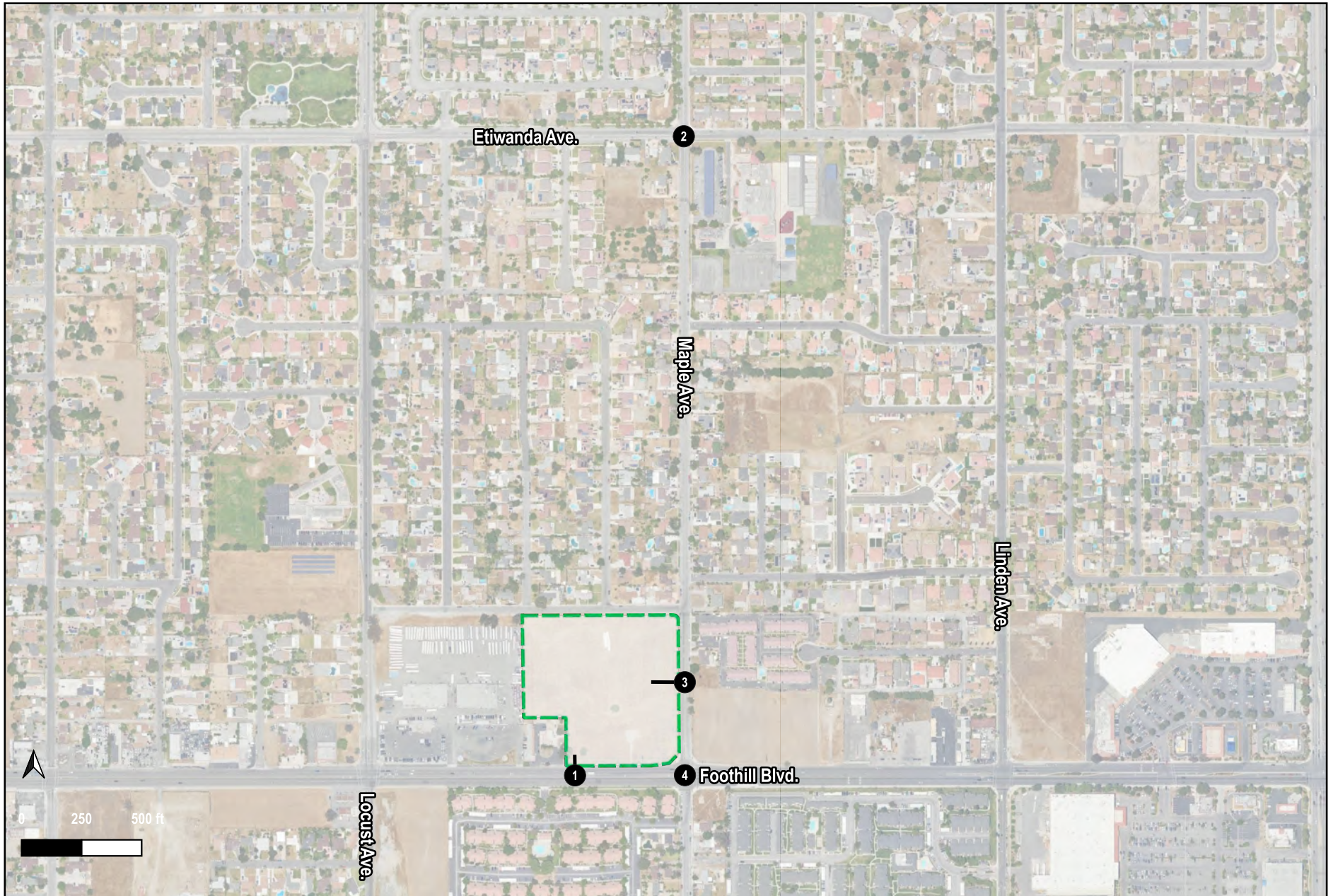


Legend

 Project Boundary

FIGURE 1

Maple Avenue and Foothill Boulevard Residential Regional Project Location



Legend

--- Project Boundary
 Study Intersections
 Project Access



FIGURE 3

**Foothill Boulevard and Maple Avenue Residential
Study Area Intersections**

4. Future Build-out Year 2045 Without Project Conditions.
5. Future Build-out Year 2045 With Project Conditions.

Consistent with City guidelines, this report analyzes weekday a.m. and p.m. peak hour conditions. The a.m. peak hour is defined as the one hour of highest traffic volumes occurring between 7:00 and 9:00 a.m. The p.m. peak hour is defined as the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m.

3.0 PROJECT DESCRIPTION

The project proposes the construction of 270 multi-family dwelling units on approximately 8.18 acres. Access to the project will be provided via two driveways. Driveway 1 is located on Foothill Boulevard and is a right-out access driveway only. Driveway 2 is located on Maple Avenue and is a full access driveway. Previously referenced Figure 2 illustrates the locations of the driveways.

3.1 Project Trip Generation

To develop the project trip generation for the residential use, Land Use 220 "Multifamily Housing (Low-Rise)" from the Institute of Transportation Engineers' (ITE) Trip Generation (11th Edition) was used. Table A shows the project trip generation. As shown in Table A, the project is forecast to generate 108 trips during the a.m. peak hour, 138 trips during the p.m. peak hour, and 1,820 new daily trips.

Table A: Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Trip Generation Rates ¹		0.10	0.30	0.40	0.32	0.19	0.51	6.74
Trip Generation	270 DU	26	82	108	87	51	138	1,820
Total Trip Generation		26	82	108	87	51	138	1,820

Notes: DU = Dwelling Unit

¹ Trip generation based on rates for Land Use 220 - "Multifamily Housing (Low-Rise)" from Institute of Transportation Engineers' (ITE) Trip Generation (11th Edition).

3.2 Project Trip Distribution & Assignment

Project trip distribution patterns for the proposed project were developed based on the location of local and regional destinations. The project trip generation was applied to the trip distribution patterns for the project to develop trip assignments for new project trips. Figure 4 shows the project trip distribution and Figure 5 shows the project trip assignment.

4.0 LOS DEFINITIONS, PROCEDURES, AND THRESHOLDS

Level of service (LOS) is a measure of the quality of operational conditions within a traffic stream and is expressed in terms of such measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Levels range from A to F, with LOS A representing excellent (free flow) conditions and LOS F representing extreme congestion. Consistent to the guidelines, the Highway Capacity Manual (HCM) procedures have been used to evaluate levels of service. This section discusses the LOS definitions, procedures, and thresholds used in this report.

4.1 Levels of Service

The analysis of traffic operations at intersections was conducted according to the Highway Capacity Manual 6th Edition (HCM) delay methodologies, which is described in the Highway Capacity Manual (Transportation Research Board, Washington, D.C., November 2016). Under the HCM methodology, LOS for signalized intersections is based on the average delay experienced by vehicles traveling through an intersection, whereas for unsignalized intersections, the LOS is based on the worst approach where the minor leg has a shared lane and on the worst movement where the minor leg has dedicated turn lanes. Table B presents a brief description of each level of service letter grade, as well as the range of delays associated with each grade.

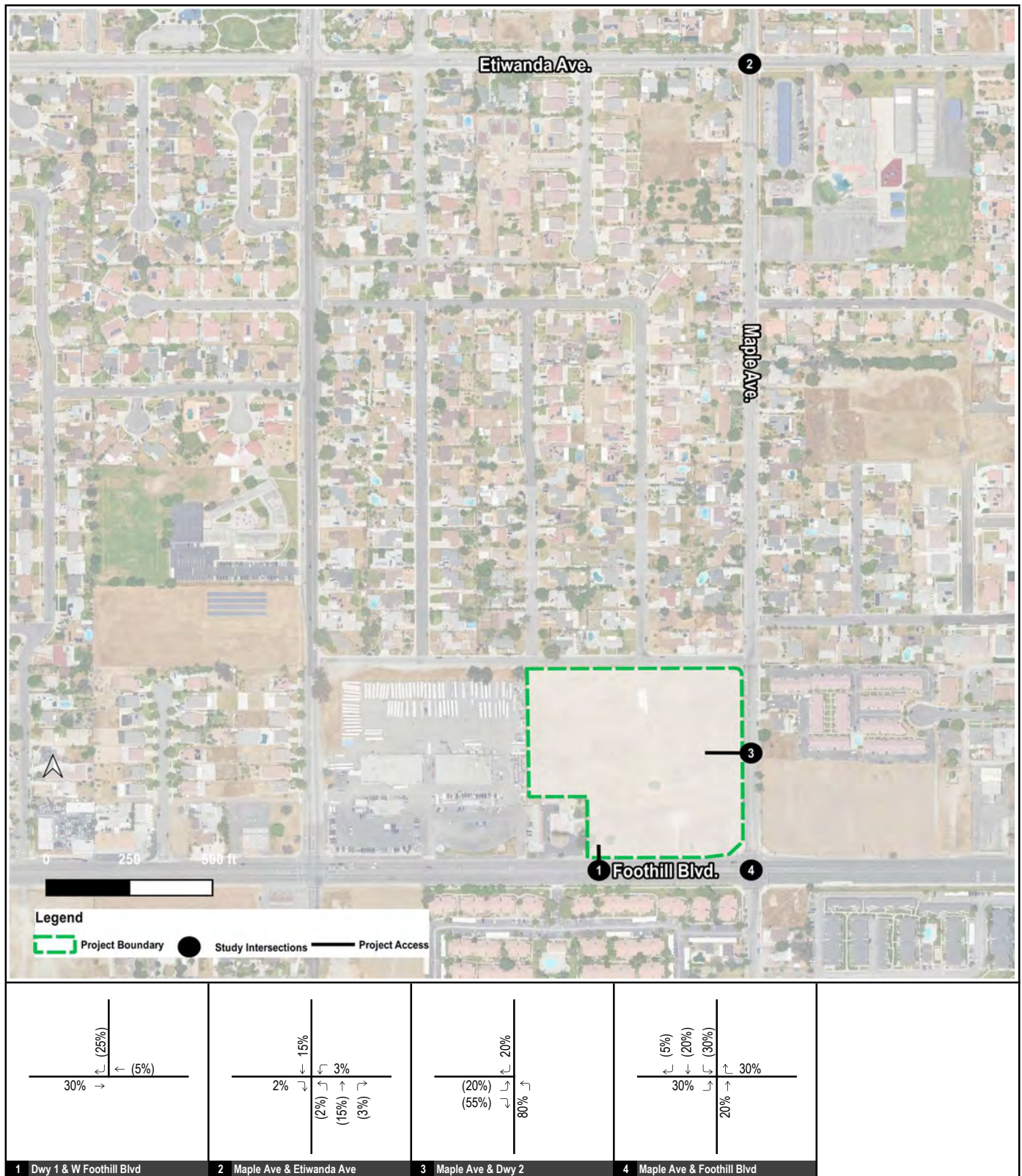


FIGURE 4

XX%(YY%) Inbound%(Outbound%) Distribution

Maple Avenue and Foothill Boulevard Residential Project Trip Distribution



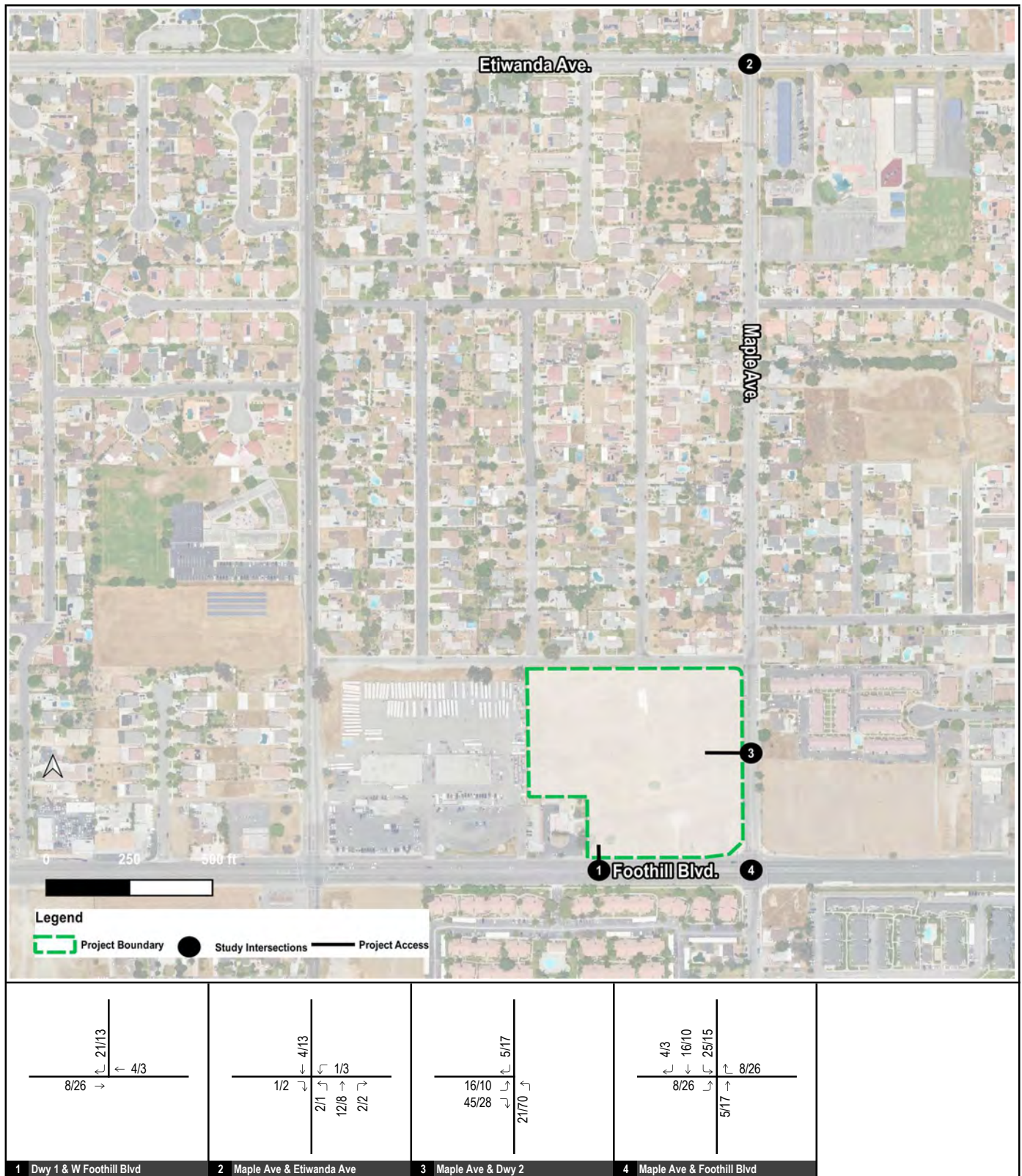


FIGURE 5

XX/YY

AM/PM Peak Hour Project Trips

Maple Avenue and Foothill Boulevard Residential Project Trip Assignment



Table B: Level Of Service Criteria

LOS	Description of Drivers' Perception and Traffic Operation	Delay in Seconds	
		Un-signalized	Signalized
A	This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable, or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10	≤ 10
B	This level is assigned when the volume-to-capacity ratio is low and either progression is highly favorable, or the cycle length is short. More vehicles stop than with LOS A.	> 10 and ≤ 15	> 10 and ≤ 20
C	This level is typically assigned when progression is favorable, or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 15 and ≤ 25	> 20 and ≤ 35
D	This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective, or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	> 25 and ≤ 35	> 35 and ≤ 55
E	This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	> 35 and ≤ 50	> 55 and ≤ 80
F	This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 50	> 80

Source: Highway Capacity Manual, 7th Edition

4.2 Levels of Service Standards

The City of Fontana has established a LOS standard of LOS C as the minimum level of service standard for intersection operations. Therefore, study intersections which are forecast to operate at unsatisfactory conditions (i.e. at LOS worse than LOS C for city intersections) will be identified as cumulatively deficient intersections.

The City of Rialto identifies policies applicable to minimum Level of Service within the City as follows:

- Policy 4-1.20: Design City streets so that signalized intersections operate at Level of Service D or better during the morning and evening peak hours and require new development to mitigate impacts that degrade LOS below that level.
- Policy 4-1.21: Design City streets so that unsignalized intersections operate with no vehicular movement have an average delay greater than 120 seconds during the morning and evening peak hours and require new development to mitigate traffic impacts that increase delay above that level.

4.3 Determination of Effects

The City of Fontana's determination of deficient intersections is based on a comparison of without and with project levels of service for each analysis year. An intersection effect occurs if project traffic increases the average delay at an intersection by more than the thresholds identified below:

- LOS A/B: > 10.0 Seconds.
- LOS C: > 8.0 Seconds.
- LOS D: > 5.0 Seconds.
- LOS E: > 3.0 Seconds.
- LOS F: > 1.0 Seconds.

The City of Rialto deems infrastructure deficiencies to occur at any intersection in which the project causes the LOS to fall below LOS D or the peak hour delay increases as follows:

- LOS A/B: > 10.0 Seconds.
- LOS C: > 8.0 Seconds.

- LOS D: > 5.0 Seconds.
- LOS E: > 2.0 Seconds.
- LOS F: > 1.0 Seconds.

5.0 VOLUME DEVELOPMENT METHODOLOGY

Forecast traffic volumes at study intersections were developed based on discussion with City staff. This section discusses the volume development methodology used to forecast future traffic volumes.

5.1 Existing Traffic Volumes

Existing peak hour traffic volumes are based on peak hour intersection turn movement counts collected by Counts Unlimited Inc. in May 2024. The counts are included in Appendix B. Vehicle classification counts (e.g., passenger vehicle, 2-axle truck, 3-axle truck, and 4 or more axle trucks), were conducted at all existing study area intersections. Consistent with the City guidelines, PCE volumes at these intersections were calculated using a PCE factor of 2.0 for 2-axle trucks, 2.5 for 3-axle trucks, and 3.0 for trucks with 4 or more axles. Detailed volume development worksheets are included in Appendix C.

5.2 Opening Year (2025) Without Project Traffic Volumes

Opening year (2025) without project peak hour traffic volumes were developed by applying an annual growth rate per year (2024 to 2025) to the existing traffic volumes at each existing study intersection. The growth rate is based on the SBTAM daily link volume growth at adjacent intersections on Etiwanda Avenue and Foothill Boulevard.

5.3 Future Build-out Year (2045) Without Project Traffic Volumes

Future build-out year traffic volumes are usually based on post-processing link volumes from the SBTAM. However, the SBTAM model does not include Maple Avenue in the base year or future year model. Therefore, a growth rate from the SBTAM daily link volumes at the adjacent intersections of Locust Avenue/Etiwanda Avenue and Locust Avenue/Foothill Boulevard were developed for the north/south and east/west directions. Table C shows the annual growth rate based on the daily link volumes. The future build-out year (2045) without project peak hour traffic volumes were developed by applying the annual growth rate per year (2024 to 2045) to the existing traffic volumes at existing study area intersection.

5.4 With Project Traffic Volumes

Traffic volumes for opening year (2024) and future build-out year 2045 with project traffic volumes were developed by adding the project trip assignment to the corresponding without project peak hour traffic volumes. Detailed volume development worksheets are included in Appendix C.

6.0 EXISTING CONDITIONS

This section discusses the existing transportation conditions in the study area.

6.1 Existing Roadway Conditions

Regional access to the project site is provided by Interstate 10 to the south and SR-210 to the north. Local access is provided by the following roadways:

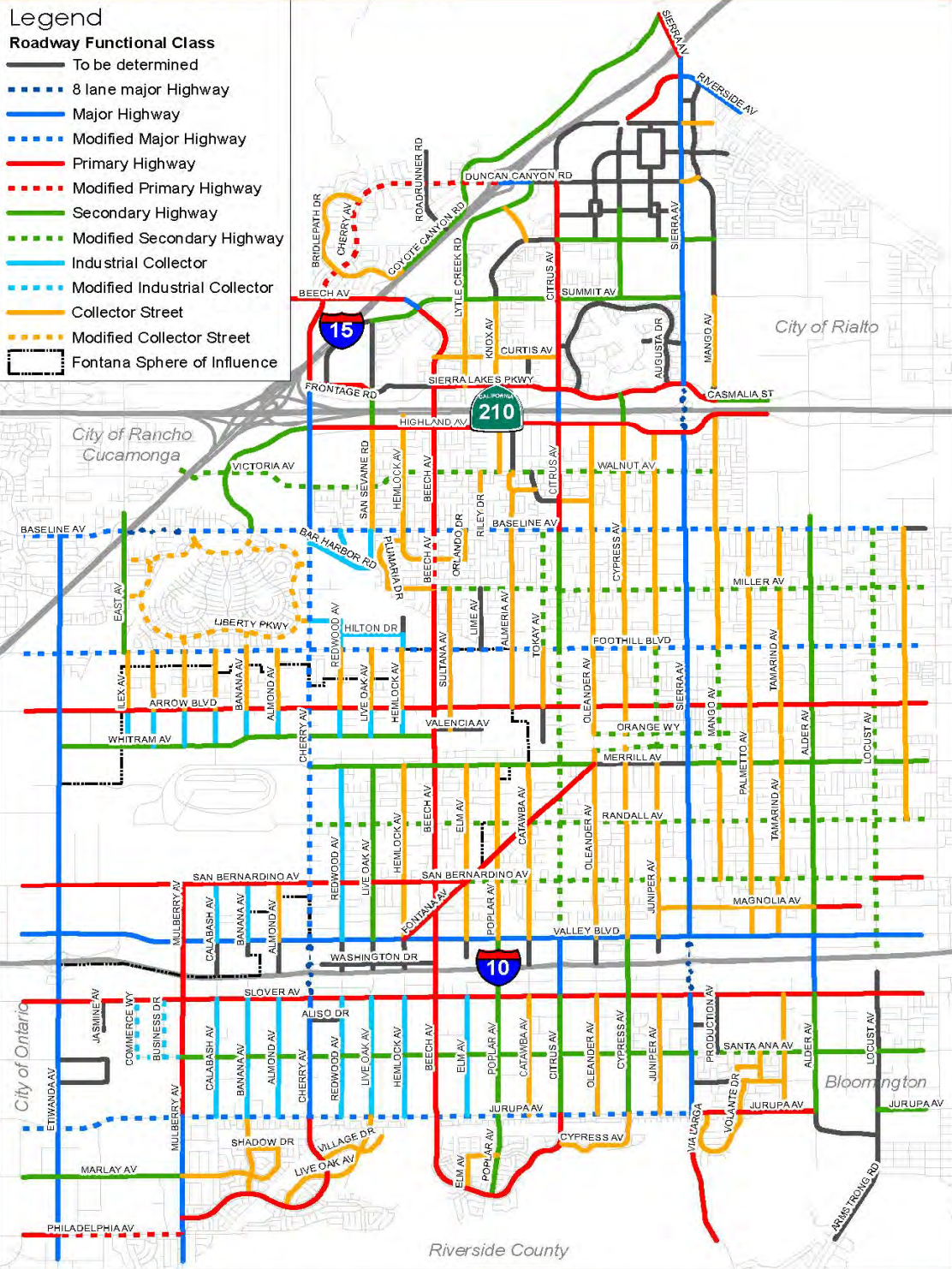
- Etiwanda Avenue is oriented in the east-west direction and is a two-lane roadway. The posted speed limit on Etiwanda Avenue is 40 miles per hour. Etiwanda Avenue is classified as a Modified Secondary Highway in the City's General Plan.
- Maple Avenue is oriented in the north-south direction and is a two-lane roadway. The speed limit on Maple Avenue is 35 miles per hour. Maple is classified as a Collector Street in the City's General Plan.
- Foothill Boulevard is oriented in the east-west direction and is a four-lane roadway. The speed limit on Foothill Boulevard is 50 miles per hour. Foothill Boulevard is classified as a Modified Major Highway in the City's General Plan.

The City's hierarchy of streets is illustrated in Figure 6.

Table C: SBTAM Growth Rate

Intersection	Direction	Daily Link Volumes (Two-Way)		Total Growth (%)	Growth Per Year (%)
		Base Year (2016)	Future Year (2040)		
Locust Ave./Etiwanda Ave.	North/South	5,424	9,786	80%	3.0%
	East/West	2,967	3,758	27%	1.0%
Locust Ave./Foothill Blvd.	North/South	5,108	7,881	54%	2.0%
	East/West	50,804	62,665	23%	1.0%

EXHIBIT 9.2 HIERARCHY OF STREETS IN FONTANA



Roadway Functional Classifications
 March, 2017
 Data source: City of Fontana, 2017



FIGURE 6
 Maple Avenue and Foothill Boulevard Residential
 City of Fontana's Circulation Map

6.2 Existing Transit Service

Public transportation services within the City of Fontana and near the proposed project include bus transit service (Omnitrans) and commuter rail transportation (Metrolink). These services are further described below.

Bus Service. Public transportation in the City of Fontana is provided by Omnitrans, which is the regional transit operator in San Bernardino County. The following transit routes operate near the project:

- Route 312 provides service in Fontana, Rialto, Muscoy, and Cal State San Bernardino. Near the study area, Route 312 travels along Linden Avenue. Route 312 operates at 60-minute headways during the week with major stops including the Fontana Metrolink Transit Center. The nearest stop is located on the northeast corner of Linden Avenue and Foothill Boulevard.
- Route 14 provides service in Fontana and San Bernardino via Rialto. Near the study area, Route 14 travels along Foothill Boulevard. Route 14 operates at 20-minute headways during peak hours and 30-minute headways during off-peak hours. Major stops include the San Bernardino Transit Center, and Fontana Metrolink Transit Center. The nearest stop is located on the northwest corner of Maple Avenue and Foothill Boulevard.

Commuter Rail Service. Commuter rail service is provided by Metrolink, which is operated by the Southern California Regional Rail Authority (SCRRA). Metrolink train service is available between the counties of Ventura, Los Angeles, San Bernardino, Orange, Riverside, and north San Diego. The area is served by the San Bernardino Line, which runs east-west between the San Bernardino Station and the Los Angeles Union Station. The Fontana Station is the nearest Metrolink station to the project site and is approximately 2 miles from the project area.

Figure 7 illustrates the transit lines within the project area.

6.3 Existing Bicycle & Pedestrian Facilities

The City's bikeway network includes three types of facilities and are discussed below:

- **Class I (Shared-Use Paths)** A Class I bikeway is a shared-use path that allows for two-way off-street bicycle use and may be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users.
- **Class II (Bicycle Lanes)** A Class II bikeway is a bicycle lane that is a portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists. Bicycle lanes are always located on both sides of the road (except one-way streets) and allow bicyclists to ride in the same direction as adjacent motor vehicle traffic.
- **Class III (Bike Routes)** Class III bikeways generally employ bikeway signage, and may also use pavement markings, to guide bicyclists to popular destinations on low-volume, bike-friendly roadways.

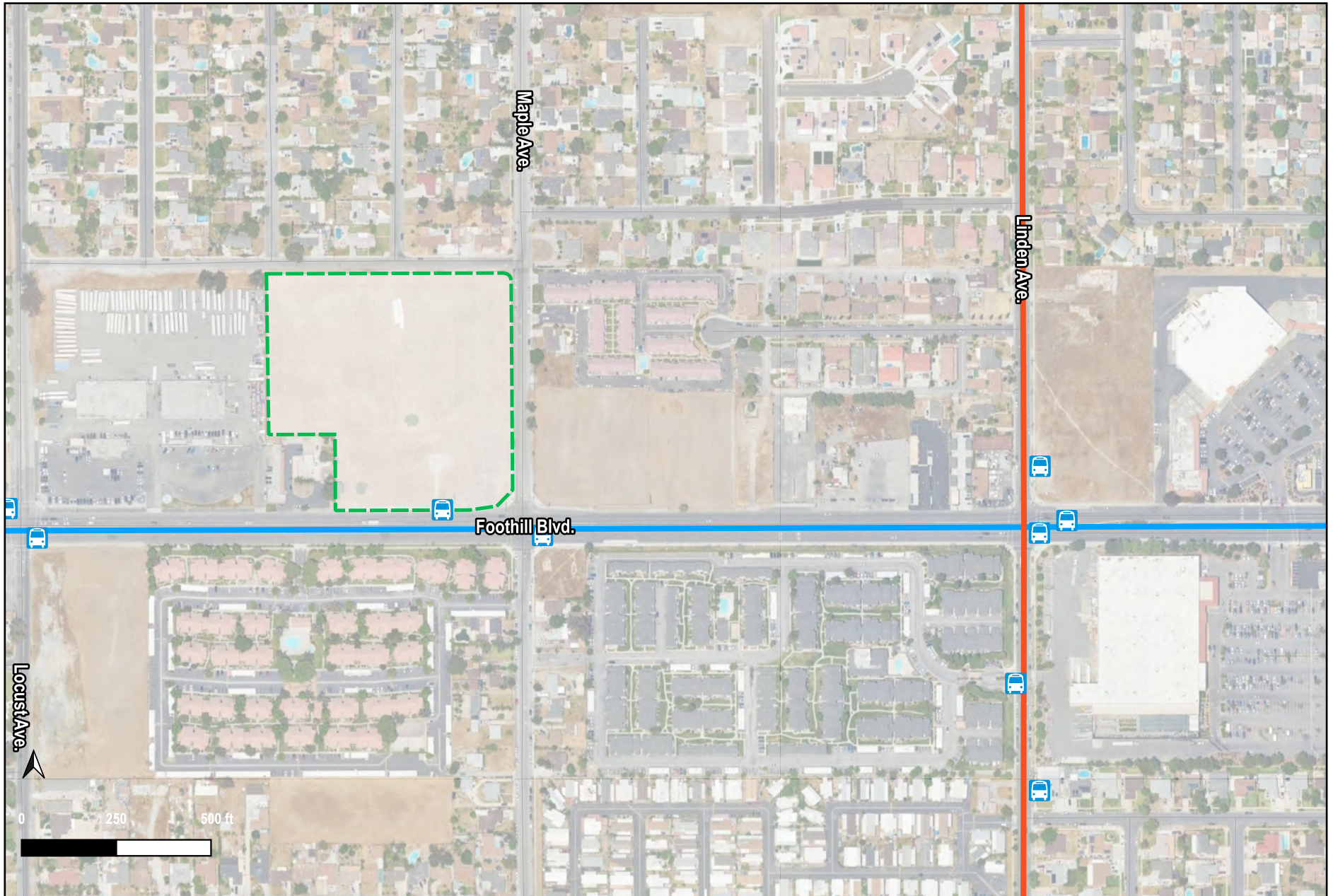
Figure 8 illustrates the existing bike lanes within the project area. As shown in Figure 8, there are existing bike lanes on Alder Avenue. Figure 9 illustrates the existing pedestrian facilities near the project. As illustrated in Figure 9, there are sidewalks to the west of the project on Foothill Boulevard and no sidewalks on Maple Avenue from Foothill Boulevard to Barbee Street.

6.4 Existing Levels of Service

An intersection level of service analysis was conducted for existing conditions to determine current circulation system performance. Figure 10 shows the existing lane geometrics and stop controls at the study intersections. Existing traffic volumes at study intersections are shown in Figure 11. Detailed volume development worksheets are included in Appendix C. The existing levels of service for the study area intersections are summarized in Table D. Level of service calculation worksheets are contained in Appendix D. As shown in Table D, all study area intersections are currently operating at satisfactory levels of service.

7.0 OPENING YEAR (2025) CONDITIONS

This section discusses opening year transportation conditions in the study area. It is anticipated that the project will open in 2025.



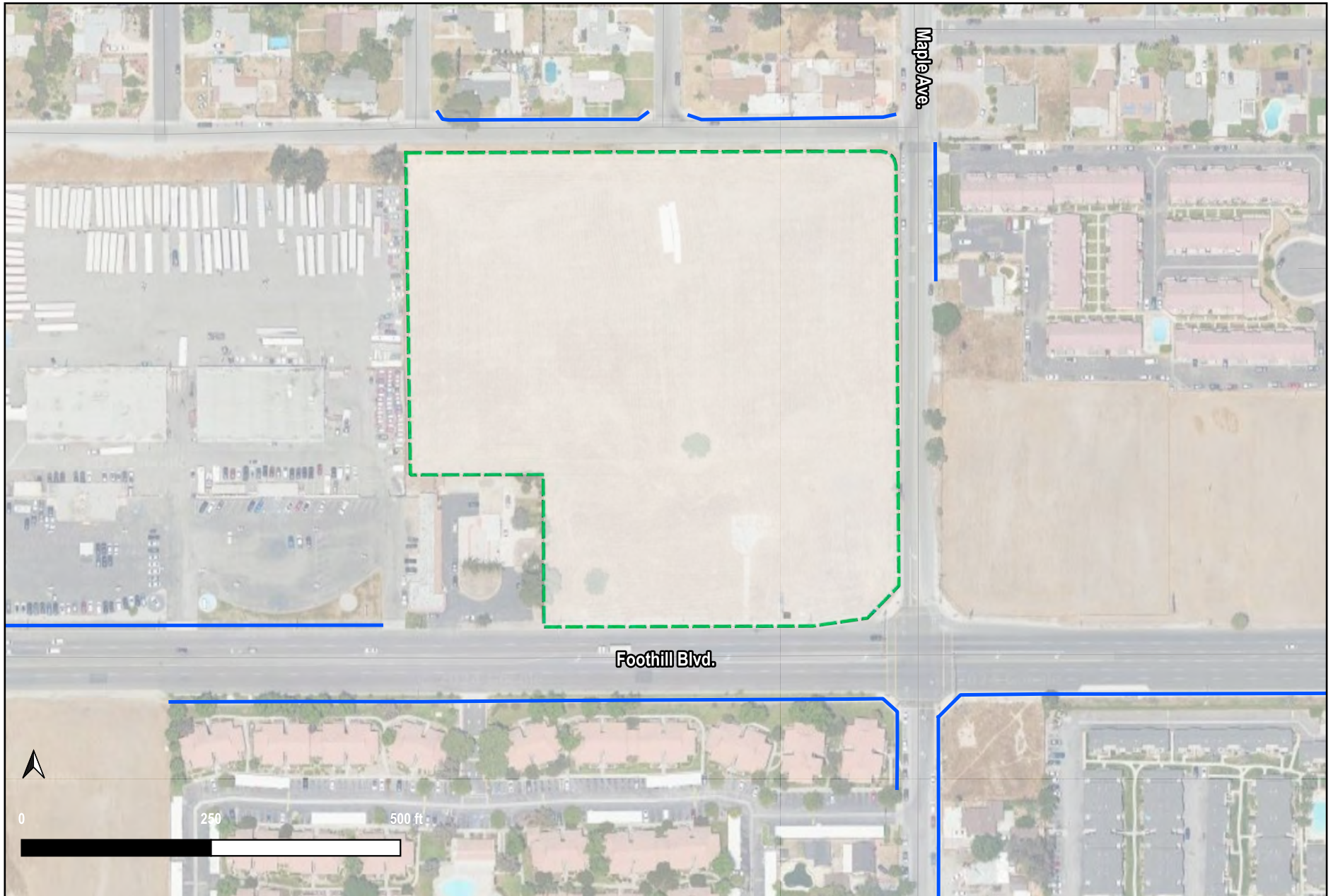
Legend

 Project Boundary
 Route 312
 Route 14
 🚌 Bus Stops



FIGURE 7

Maple Avenue and Foothill Boulevard Residential Transit



Legend

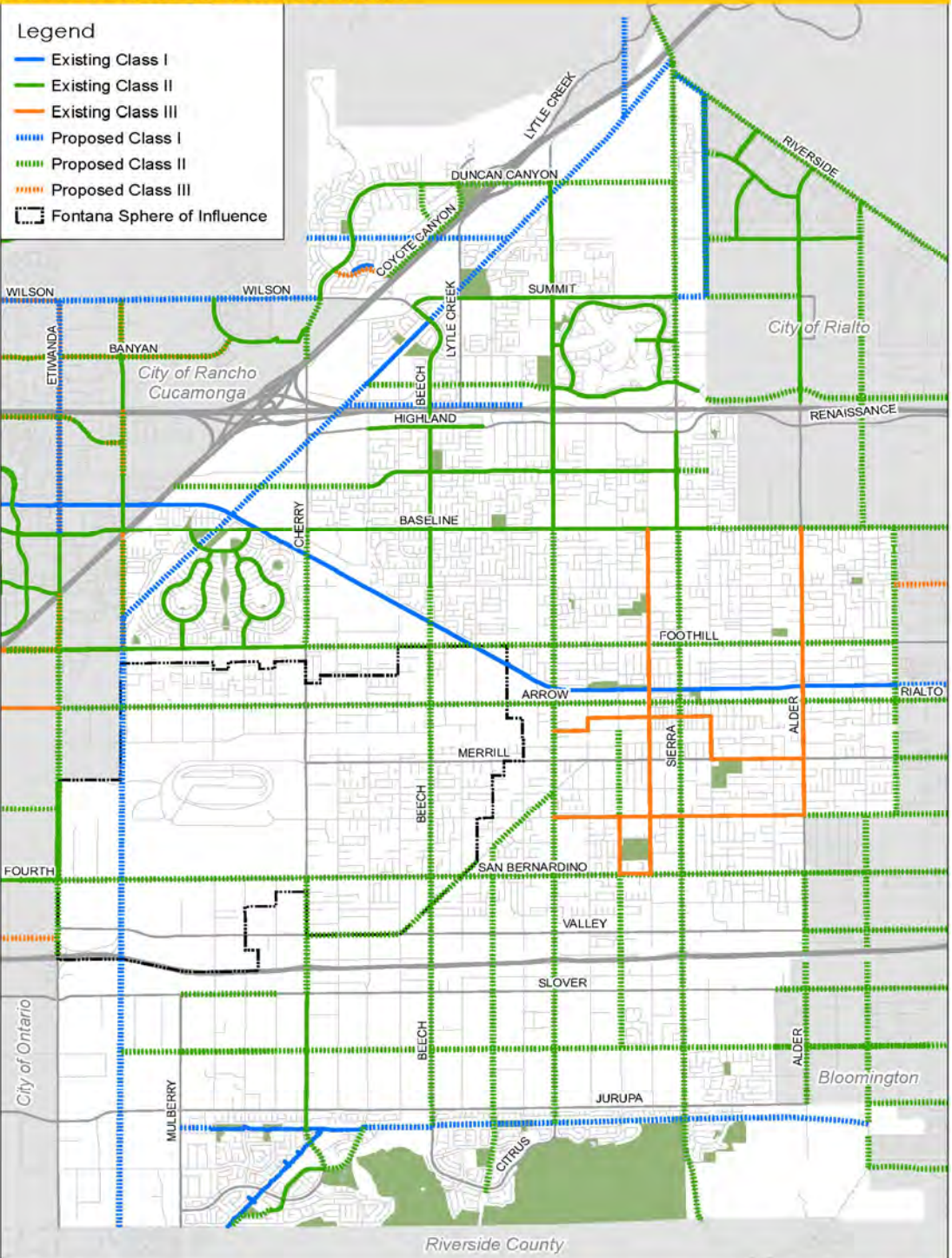
--- Project Boundary --- Sidewalks



FIGURE 8

**Maple Avenue and Foothill Boulevard Residential
Pedestrian Sidewalks**

EXHIBIT 9.6 BICYCLE FACILITIES IN FONTANA



Bicycle Facilities
 March, 2017
 Data sources: City of Fontana, 2015;
 SANBAG NMTP, 2014

Fontana Forward
 FONTANA GENERAL PLAN UPDATE 2015-2035

0 2,500 5,000 10,000
 Scale 1:75,000 Feet

FIGURE 9
Maple Avenue and Foothill Boulevard Residential
City of Fontana's Bike Lanes

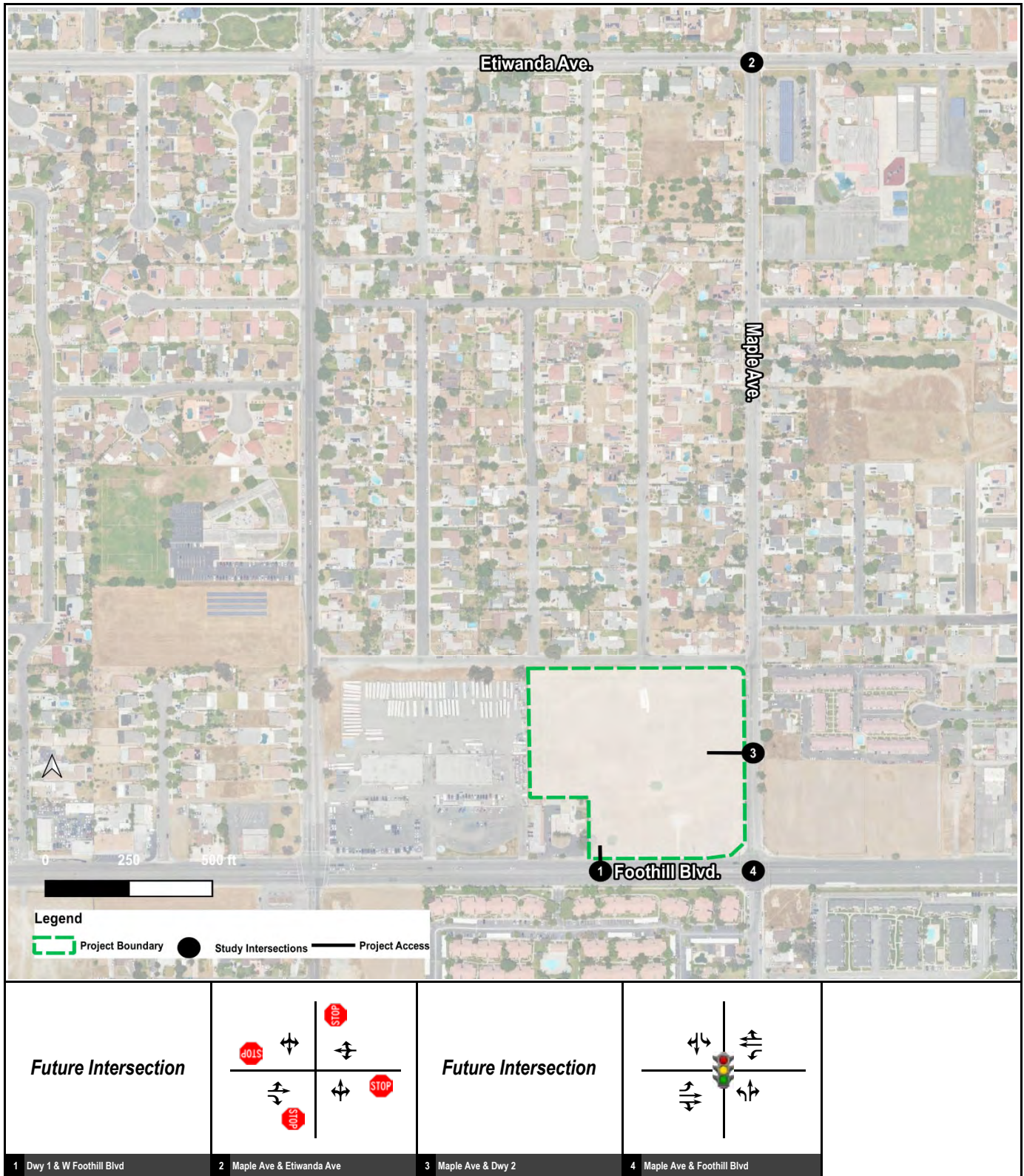


FIGURE 10

Legend



Maple Avenue and Foothill Boulevard Residential Existing Without Project Intersection Geometrics and Stop Control



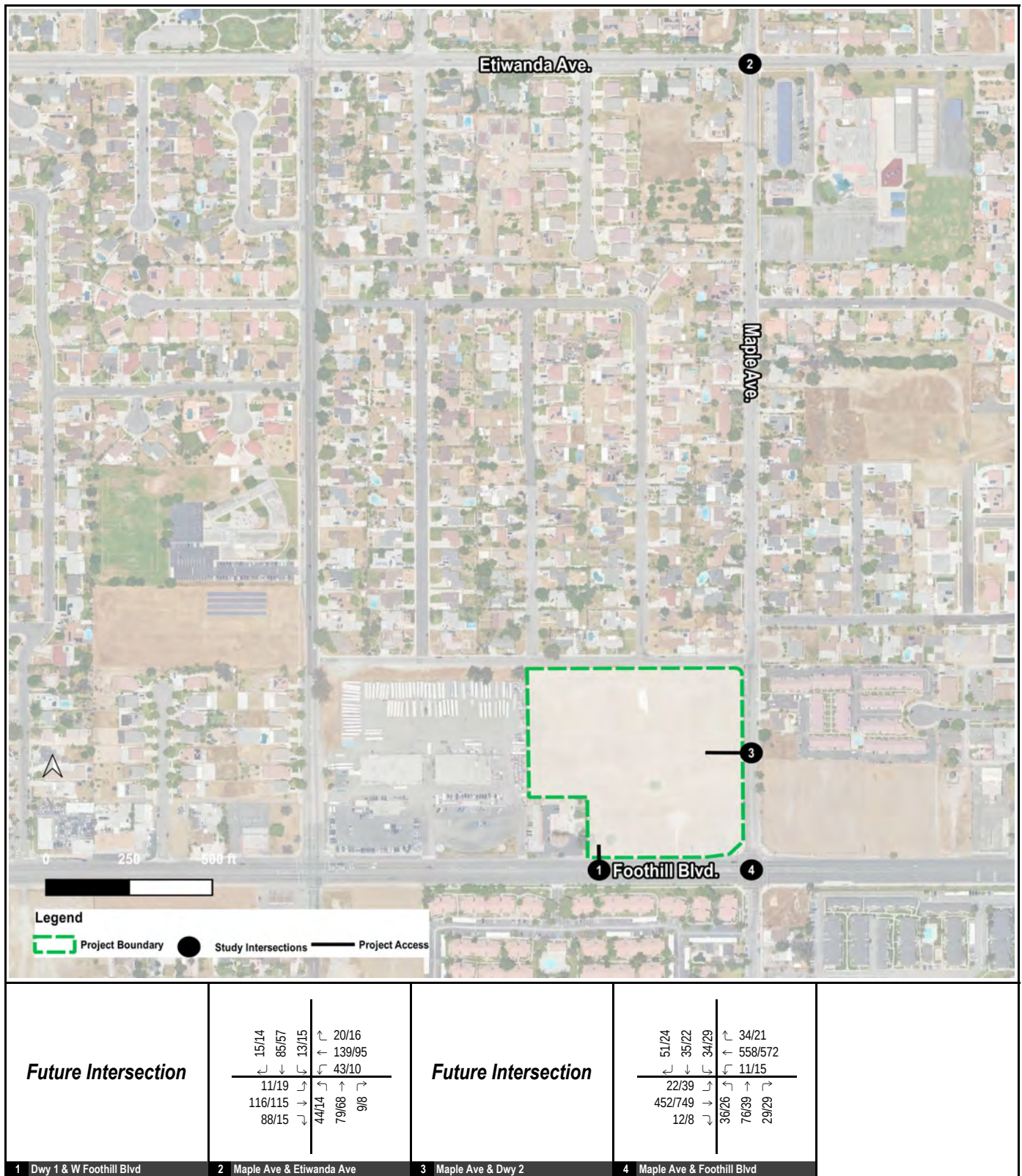


FIGURE 11

XXXX / YYYY AM / PM Peak Hour Volume (In PCEs)

Maple Avenue and Foothill Boulevard Residential Existing Without Project Peak Hour Traffic Volumes



Table D: Existing Levels of Service

Intersection	Jurisdiction	Control	Without Project			
			AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1: Foothill Blvd & Dwy 1	Fontana	TWSC	<i>Future Intersection</i>			
2: Maple Ave & Etiwanda Ave	Fontana/Rialto	AWSC	9.4	A	8.7	A
3: Maple Ave & Dwy 2	Fontana	TWSC	<i>Future Intersection</i>			
4: Maple Ave & Foothill Blvd	Fontana/Rialto	Signal	19.3	B	21.8	C

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

7.1 Opening Year (2025) Roadway Conditions

Opening year roadway conditions are assumed to be the same as those under existing conditions.

7.2 Opening Year (2025) Transit Service

Transit service under opening year conditions is anticipated to remain the same as under existing conditions.

7.3 Opening Year (2025) Pedestrian & Bicycle Facilities

Pedestrian and bicycle facilities under opening year conditions are anticipated to remain the same as under existing conditions. It should be noted that the City is proposing Class II bike lanes on Maple Avenue and Foothill Boulevard within the project area. Previously referenced Figure 8 illustrates the proposed bike lanes.

7.4 Opening Year (2025) Without Project Levels of Service

An intersection level of service analysis was conducted for opening year (2025) without project conditions to determine circulation system performance. Opening year (2025) without project traffic volumes at study intersections are shown in Figure 12 Detailed volume development worksheets are included in Appendix C. Opening year (2025) without project levels of service for the study area intersections are summarized in Table E. Level of service calculation worksheets are contained in Appendix D. As shown in Table E, all study area intersections are forecast to operate at satisfactory levels of service.

7.5 Opening Year (2025) With Project Levels of Service

An intersection level of service analysis was conducted for opening year (2025) with project conditions to determine circulation system performance. Opening year (2025) with project intersection geometrics and stop controls at study intersections are shown in Figure 13. Opening year (2025) with project traffic volumes at study intersections are shown in Figure 14. Detailed volume development worksheets are included in Appendix C. Opening year (2025) with project levels of service for the study area intersections are summarized in Table E. Level of service calculation worksheets are contained in Appendix D. As shown in Table E, all study area intersections are forecast to operate at satisfactory levels of service.

8.0 FUTURE BUILD-OUT YEAR 2045 CONDITIONS

This section discusses future build-out year 2045 transportation conditions in the study area.

8.1 Future Build-Out Year 2045 Roadway Conditions

Future build-out year 2045 roadway conditions are assumed to be the same as those under opening year conditions.

8.2 Future Build-Out Year 2045 Transit Service

Transit service under future build-out year 2045 conditions is anticipated to remain the same as under opening year conditions.

8.3 Future Build-Out Year 2045 Pedestrian & Bicycle Facilities

Pedestrian and bicycle facilities under future build-out year 2045 conditions are anticipated to remain the same as under opening year conditions.

8.4 Future Build-Out Year 2045 Without Project Levels of Service

An intersection level of service analysis was conducted for future build-out year 2045 without project conditions to determine circulation system performance. Future build-out year 2045 without project traffic volumes at study intersections are shown in Figure 15. Detailed volume development worksheets are included in Appendix C. Future build-out year 2045 without project levels of service for the study area intersections are summarized in Table F. Level of service calculation worksheets are contained in Appendix D. As shown in Table F, all study area intersections are forecast to operate at satisfactory levels of service.

8.5 Future Build-Out Year 2045 With Project Levels of Service

An intersection level of service analysis was conducted for future build-out year 2045 with project conditions to determine circulation system performance. Future build-out year 2045 with project traffic volumes at study intersections are shown

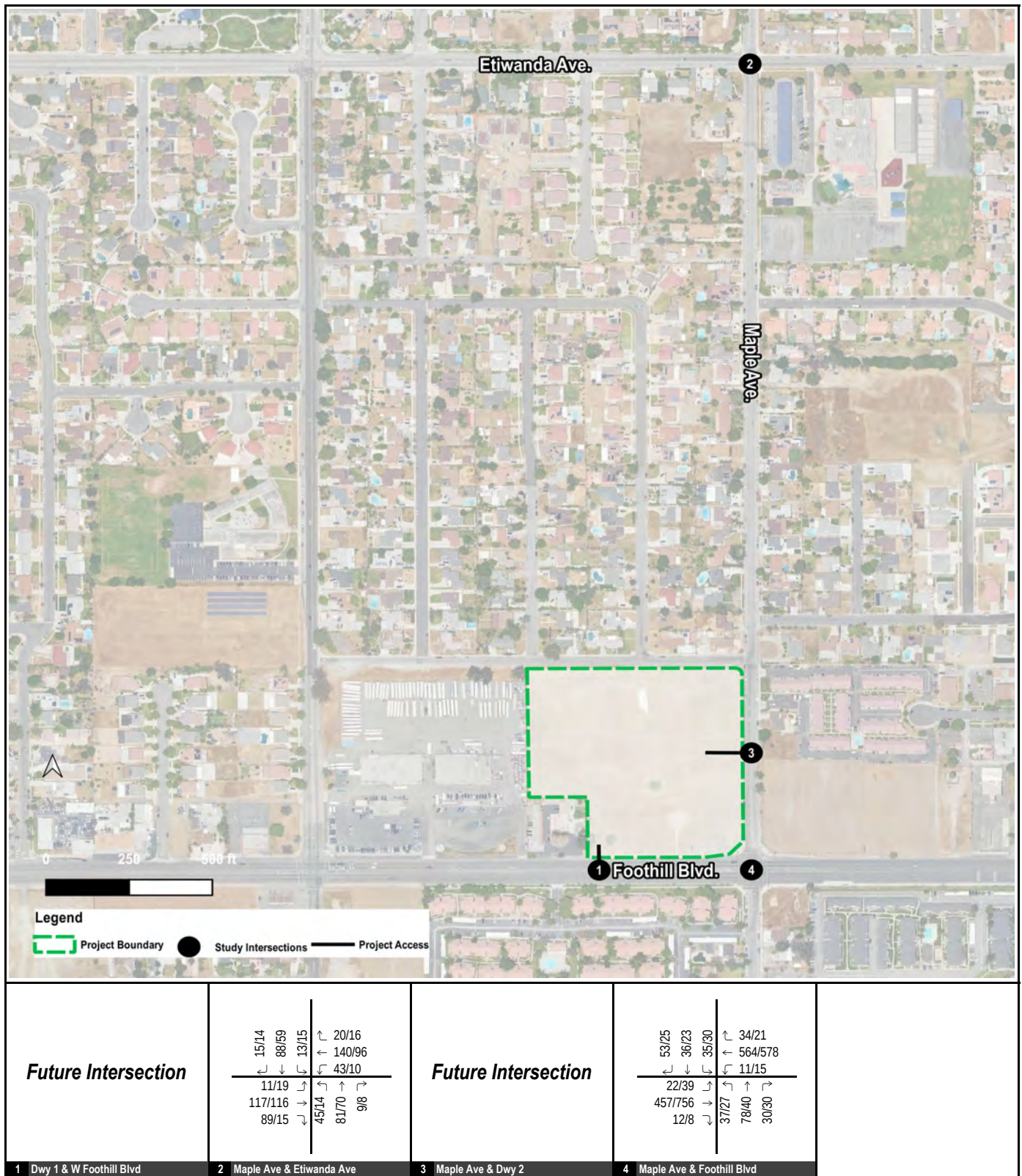


FIGURE 12

XXXX / YYYY AM / PM Peak Hour Volume (In PCEs)

Maple Avenue and Foothill Boulevard Residential Opening Year (2025) Without Project Peak Hour Traffic Volumes



Table E: Opening Year (2025) Without and With Project Levels of Service

Intersection	Jurisdiction	Control	Without Project				With Project				Change In Delay	
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		
1: Foothill Blvd & Dwy 1	Fontana	TWSC	<i>Future Intersection</i>				9.0	A	10.6	B	-	-
2: Maple Ave & Etiwanda Ave	Fontana/Rialto	AWSC	9.4	A	8.7	A	9.6	A	8.8	A	0.2	0.1
3: Maple Ave & Dwy 2	Fontana	TWSC	<i>Future Intersection</i>				9.7	A	9.5	A	-	-
4: Maple Ave & Foothill Blvd	Fontana/Rialto	Signal	19.4	B	21.9	C	19.8	B	22.8	C	0.4	0.9

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

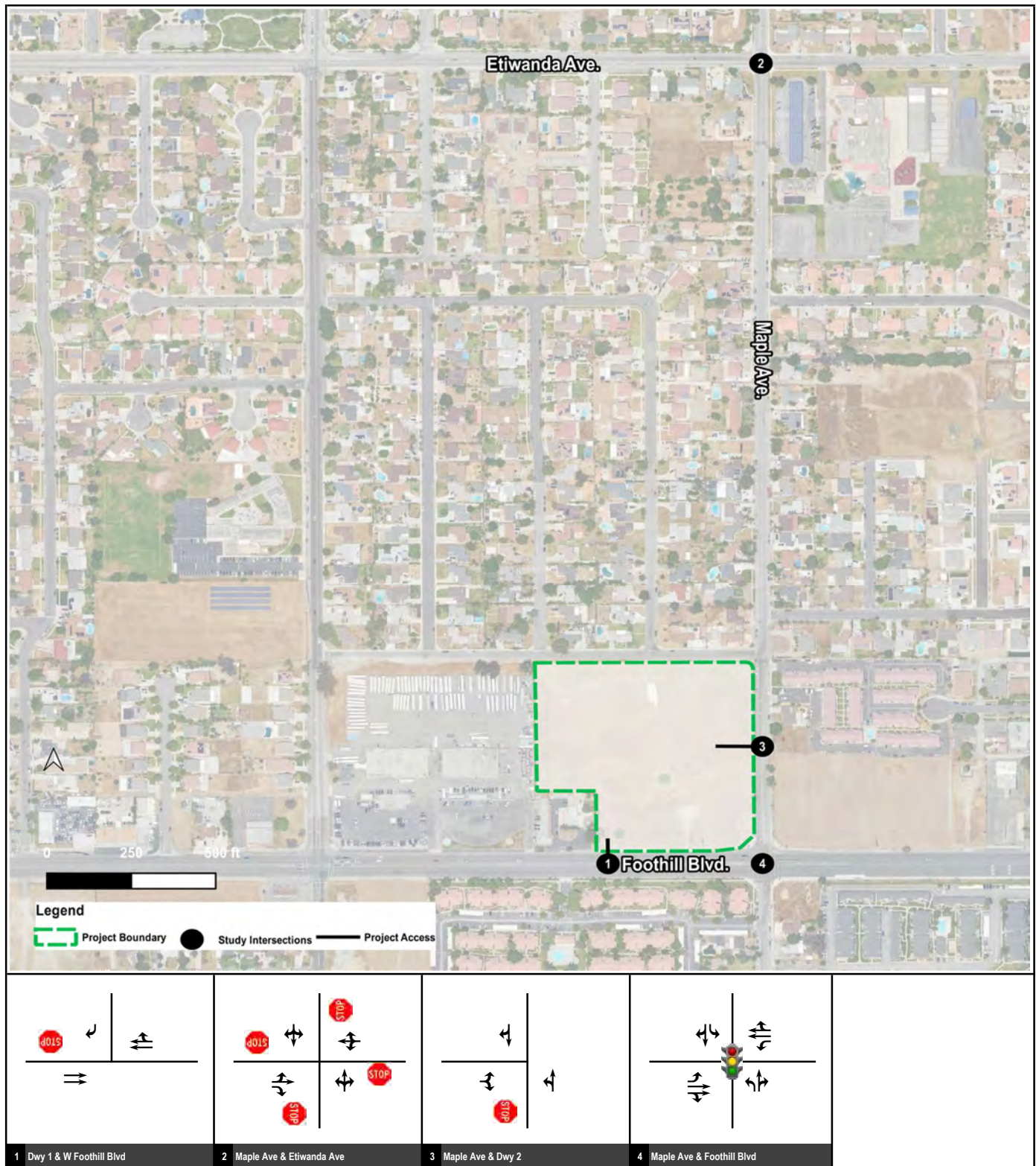


FIGURE 13

Legend



**Maple Avenue and Foothill Boulevard Residential
Opening Year (2025) With Project Intersection Geometrics and Stop Control**



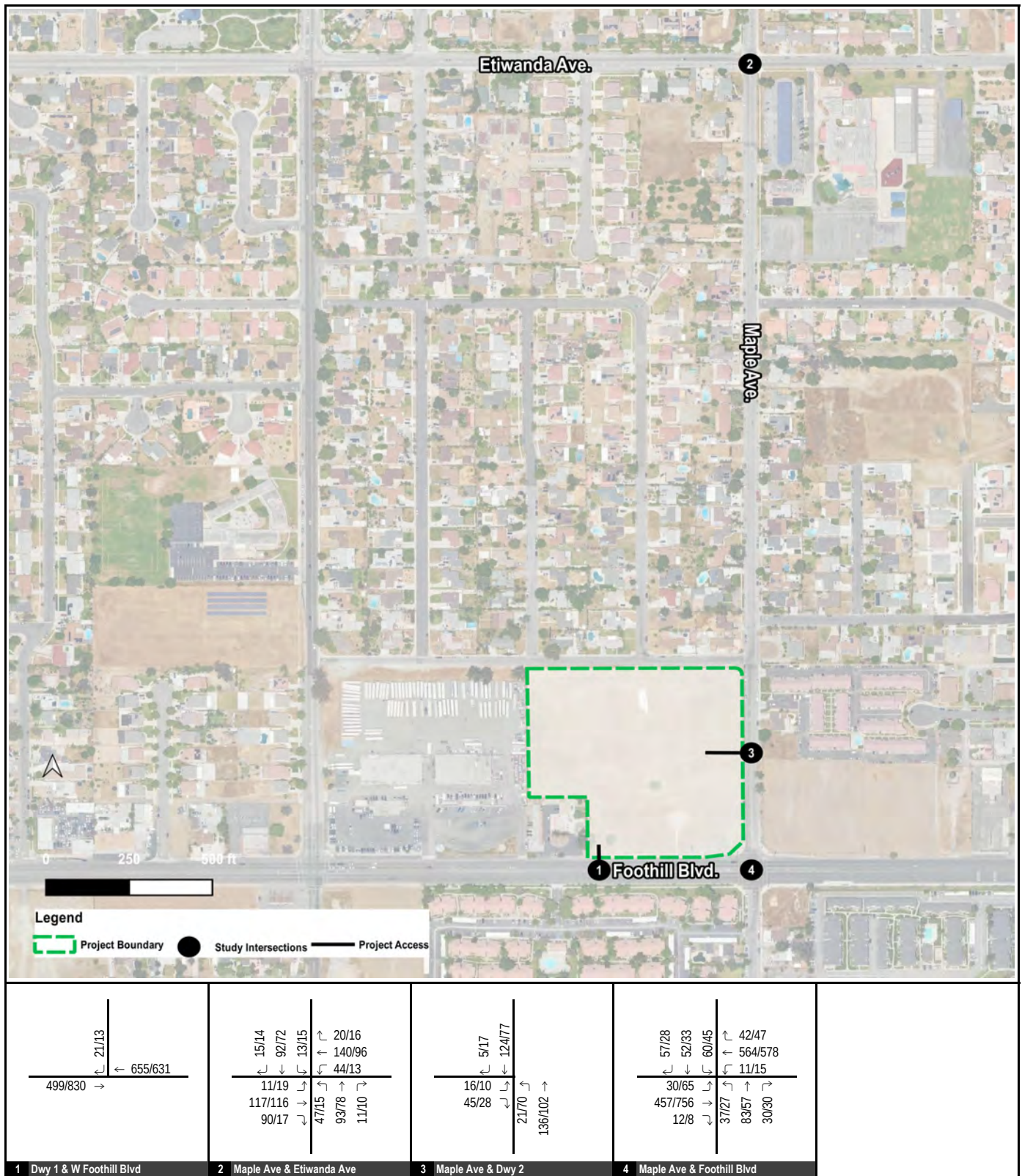


FIGURE 14

XXXX / YYYY AM / PM Peak Hour Volume (In PCEs)

Maple Avenue and Foothill Boulevard Residential Opening Year (2025) With Project Peak Hour Traffic Volumes



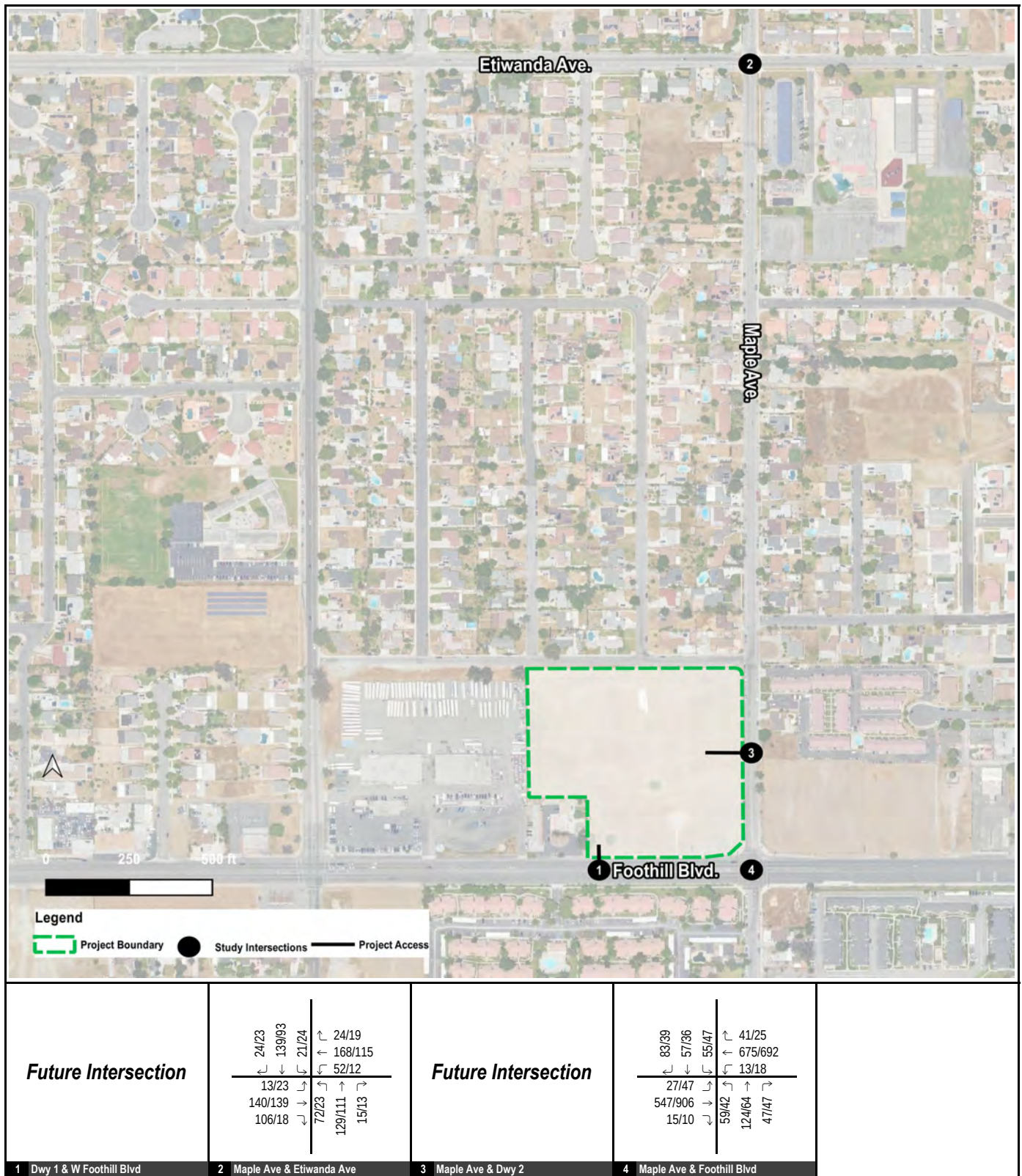


FIGURE 15

XXXX / YYYY AM / PM Peak Hour Volume (In PCEs)

**Maple Avenue and Foothill Boulevard Residential
Future Build-out Year (2045) Without Project Peak Hour Traffic Volumes**



Table F: Future Build-out Year (2045) Without and With Project Levels of Service

Intersection	Jurisdiction	Control	Without Project				With Project				Change In Delay	
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		
1: Foothill Blvd & Dwy 1	Fontana	TWSC	<i>Future Intersection</i>				9.3	A	11.2	B	-	-
2: Maple Ave & Etiwanda Ave	Fontana/Rialto	AWSC	11.4	B	9.5	A	11.6	B	9.7	A	0.2	0.2
3: Maple Ave & Dwy 2	Fontana	TWSC	<i>Future Intersection</i>				10.4	B	9.9	A	-	-
4: Maple Ave & Foothill Blvd	Fontana/Rialto	Signal	19.8	B	24.1	C	20.3	C	25.1	C	0.5	1.0

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

in Figure 16. Detailed volume development worksheets are included in Appendix C. Future build-out year 2045 with project levels of service for the study area intersections are summarized in Table F. Level of service calculation worksheets are contained in Appendix D. As shown in Table F, all study area intersections are forecast to operate at satisfactory levels of service.

9.0 SUMMARY & CONCLUSIONS

The project proposes the construction of approximately 270 multi-family dwelling units on approximately 8.18 acres. Access to the project will be provided via two driveways. Driveway 1 is located on Foothill Boulevard and is a right-out access only. Driveway 2 is located on Maple Avenue and is full-access.

Under existing conditions, all study area intersections are currently operating at satisfactory levels of service. Under opening year (2025) without and with project conditions, all study area intersections are forecast to operate at satisfactory levels of service. Under future build-out year (2045) without and with project conditions, all study intersections are forecast to operate at satisfactory levels of service.

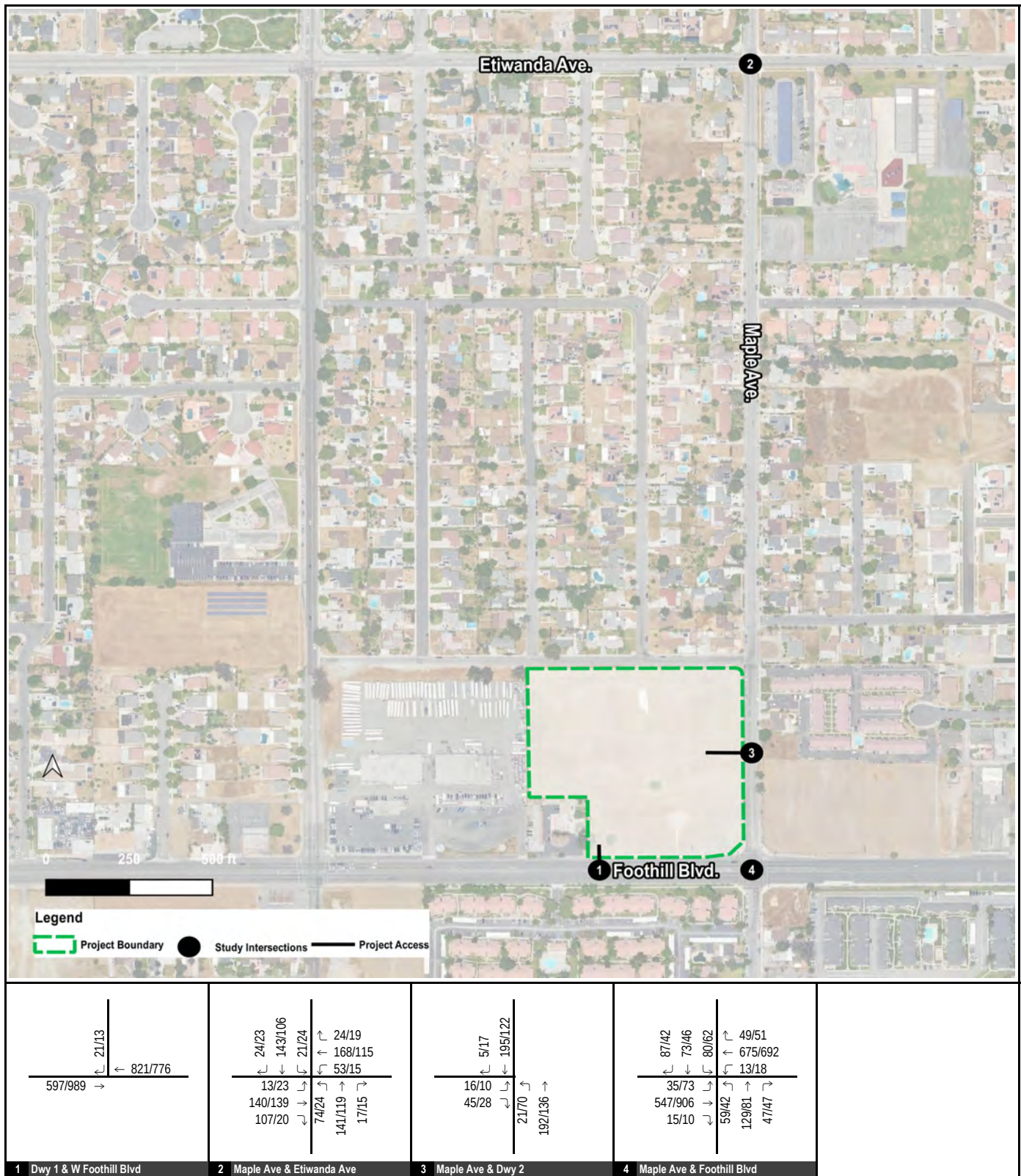


FIGURE 16

XXXX / YYYY AM / PM Peak Hour Volume (In PCEs)

Maple Avenue and Foothill Boulevard Residential Future Build-out Year (2045) With Project Peak Hour Traffic Volumes



APPENDIX A: APPROVED SCOPING AGREEMENT

November 30, 2023

Ruben Hovanesian
Traffic Engineering Manager
8353 Sierra Avenue
Fontana, California 92335

Subject: Foothill Boulevard Maple Avenue Residential Development – Scope of Work for Traffic Impact Analysis and VMT Memo

Dear Mr. Hovanesian,

Translutions, Inc. (Translutions) is pleased to present this Scope of Work to the City of Fontana for your review and approval. The project is located on the northwest corner of W Foothill Boulevard and N Maple Avenue in the City of Fontana.

The traffic impact analysis will be prepared consistent with the City of Fontana *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level Of Service Assessment* (October 2021). These guidelines describe the key elements required for preparing Level of Service Analysis Reports and CEQA Assessment for VMT analyses. The following scope of work will be included in the traffic impact analysis.

PROJECT DESCRIPTION

The project will be located on the northwest corner of W Foothill Boulevard and N Maple Avenue in the City of Fontana. The proposed project will be a residential development. The development will consist of 270 units of 3 and 4 story apartments on a 8.18-acre site. Access to the project will be provided via one full-access driveway on N Maple Avenue and one exit-only driveway on W Foothill Boulevard. Figure 1 illustrates the site plan for the proposed project. The project is anticipated to be completed in 2025.

PROJECT TRIP GENERATION

To develop the project trip generation for the residential use, Land Use 220 "Multifamily Housing (Low-Rise)" from the Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition) was used. Table A shows the project trip generation. As shown in Table A, the project is forecast to generate 108 trips during the a.m. peak hour, 138 trips during the p.m. peak hour, and 1,820 new daily trips.

The City of Fontana *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level Of Service Assessment* (October 2021) state that a proposed project is required to prepare a Traffic Impact Analysis report if the proposed project is forecast to generate between 100 and 249 two-way peak hour trips. The proposed project generates between 108 to 138 peak hour trips.

Table A - Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Trip Generation Rates ¹		0.10	0.30	0.40	0.32	0.19	0.51	6.74
Trip Generation	270 DU	26	82	108	87	51	138	1,820
Total Trip Generation		26	82	108	87	51	138	1,820

Notes: DU = Dwelling Unit

¹ Trip generation based on rates for Land Use 220 - "Multifamily Housing (Low-Rise)" from Institute of Transportation Engineers' (ITE) *Trip Generation* (11th Edition).

PROJECT TRIP DISTRIBUTION

Project trip distribution patterns for the proposed project were developed based on the location of the project in relation to the surrounding land uses and the regional network. Figures 2 and 3 illustrate the project trip distribution and the resulting project trips at the proposed study intersections.

STUDY AREA DETERMINATION

Based on the City guidelines, a Level of Service (LOS) analysis is required at intersections with more than 50 or more peak hour project trips during either the a.m. or p.m. peak hours. Based on the 50-trip threshold, an LOS analysis of the following intersections is proposed:

1. Driveway 1 and W Foothill Boulevard.
2. N Maple Avenue and Driveway 2.
3. N Maple Avenue and W Foothill Boulevard.
4. N Linden Avenue and W Foothill Boulevard.

The analysis of traffic operations and LOS during a.m. and p.m. peak hours will be provided for the following conditions:

- Existing Conditions.
- Opening Year (2025) Without Project Conditions (Existing plus growth plus approved projects).
- Opening Year (2025) With Project Conditions (Existing plus growth plus approved projects plus project).
- Future Build-out Year (2045) Without Conditions.
- Future Build-out Year (2045) With Project Conditions.
- Opening Year (2025) With Project Conditions With Recommended Improvements (If Required).
- Future Build-out Year (2045) With Project Conditions With Recommended Improvements (If Required).

EXISTING TRAFFIC CONDITIONS

Translutions will collect existing traffic counts (intersection turn volumes) for the a.m. and p.m. peak periods for the analysis intersections identified above. The existing traffic counts will be conducted on a Tuesday, Wednesday, or Thursday on non-holiday weeks. The proposed project is in the vicinity of multiple schools therefore the existing traffic counts will be conducted when the school is in session.

VOLUME DEVELOPMENT

Based on the City guidelines, the opening day without project traffic volumes will be developed through the application of growth rates to existing traffic volumes. The opening day without project traffic volumes will be based on application of a per annum growth rate and adding cumulative project trips within a five-mile radius of the project. It is anticipated that the growth rate will be based on the daily traffic plots for Foothill Boulevard around the project site.

Future Build-out year will be 20 years from the opening day of the project, rounded up to the nearest multiple of 5. Future Build-out year traffic volumes will be based on the SBTAM link volumes and post-processed consistent with NCHRP methodologies.

INTERSECTION ANALYSIS METHODOLOGY

Traffic volumes for existing and opening year conditions will be used to calculate levels of service at the study intersections using the HCM 6th Methodology for unsignalized and signalized intersections using Synchro software. Translutions would also like to request an updated list of cumulative projects in the vicinity of this project from the City to develop opening year traffic volumes. In addition, Translutions would also request information on the City's Capital Improvement Program and any other transportation improvements that the City is considering.

INTERSECTION IMPROVEMENTS AND FAIR-SHARE COST ANALYSIS

The City of Fontana General Plan recommends a LOS Standard of LOS C. For intersections which are forecast to operate at unsatisfactory conditions (i.e. at LOS worse than LOS C) circulation improvements and project fair share costs will be calculated.

VEHICLE MILES TRAVELED (VMT) SCREENING ANALYSIS MEMO

A VMT Screening analysis will be conducted based on the City of Fontana VMT guidelines. Based on the preliminary analysis done using the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool, it is anticipated that the project will likely screen out of a full VMT analysis since it is located within a Low VMT Generating TAZ Area. Figure 4 illustrates the location of the parcel containing the proposed project site with respect to Low VMT Generating TAZs. A separate VMT screening memorandum will be provided.

I would appreciate it if you could review the scope of the analysis outlined in this letter and the accompanying figures. Please let me know whether the City has any comments on the trip generation, trip distribution, or the proposed study area, as well as any specific issues that it wants the traffic study to address. Finally, if the City is aware of any other approved or pending projects in the vicinity of this project, I would appreciate receiving information on those projects so that we may include trips generated by those projects in the study.

Thank you for your assistance in this matter. I can be reached by email at deepali@translutions.com.

Sincerely,

translutions, Inc.



Deepali Chausalkar
Principal

Figures:

- Figure 1 – Site Plan
- Figure 2 – Project Trip Distribution
- Figure 3 – Project Trip Assignment
- Figure 4 – SBCTA VMT Screening Tool
- Scoping Form

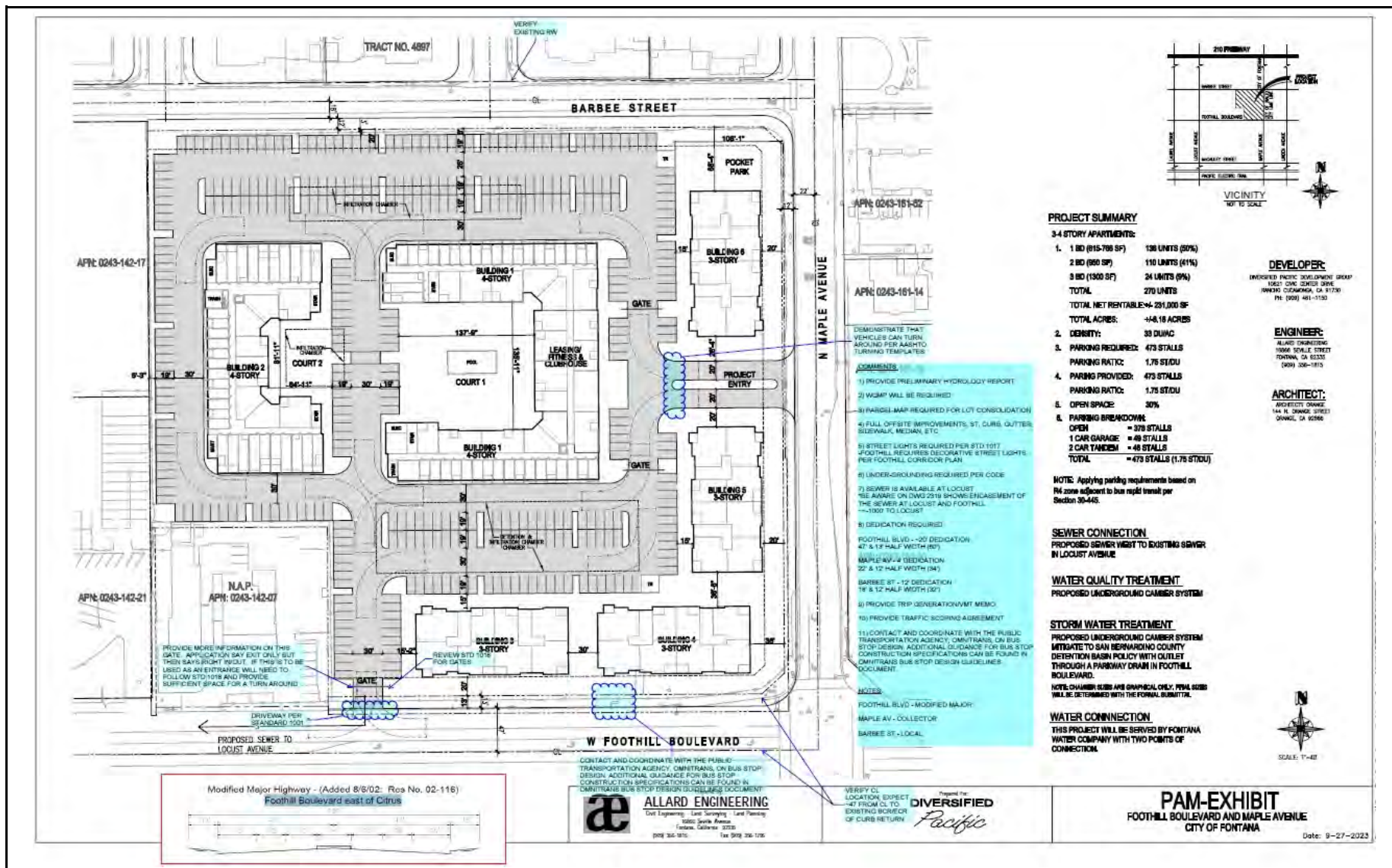


FIGURE 1

Foothill Boulevard and Maple Avenue
Site Plan

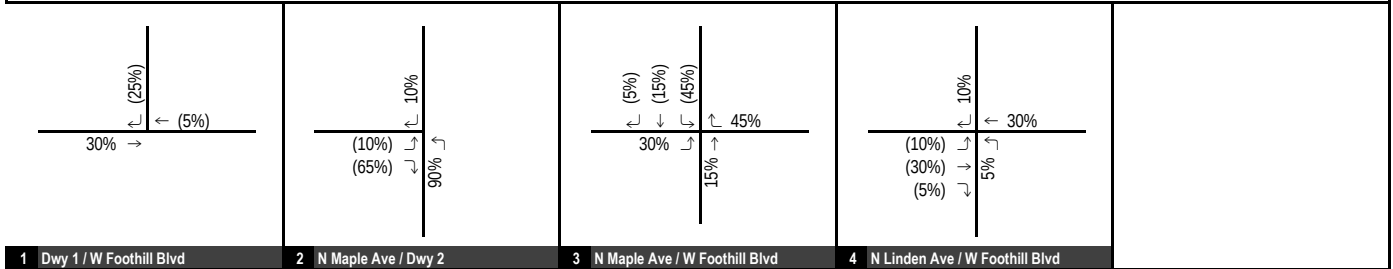


FIGURE 2

XX%(YY%) Outbound%(Inbound%) Distribution

Foothill Boulevard and Maple Avenue Project Distribution



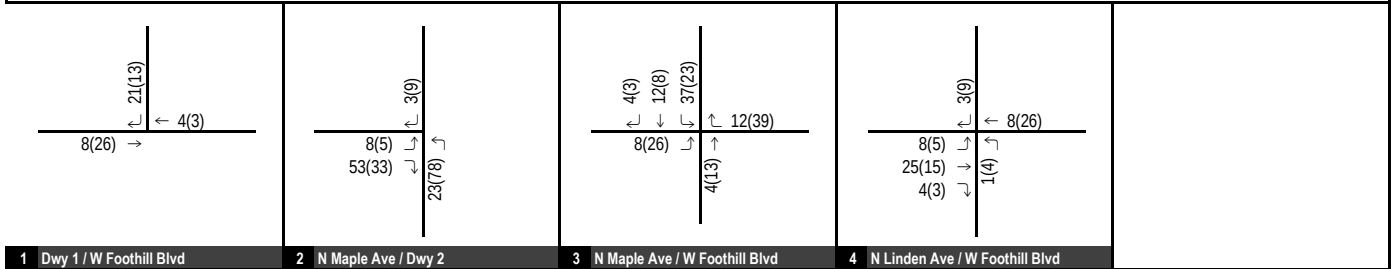


FIGURE 3

xx(yy) AM(PM) Trips

Foothill Boulevard and Maple Avenue Project Trip Assignment



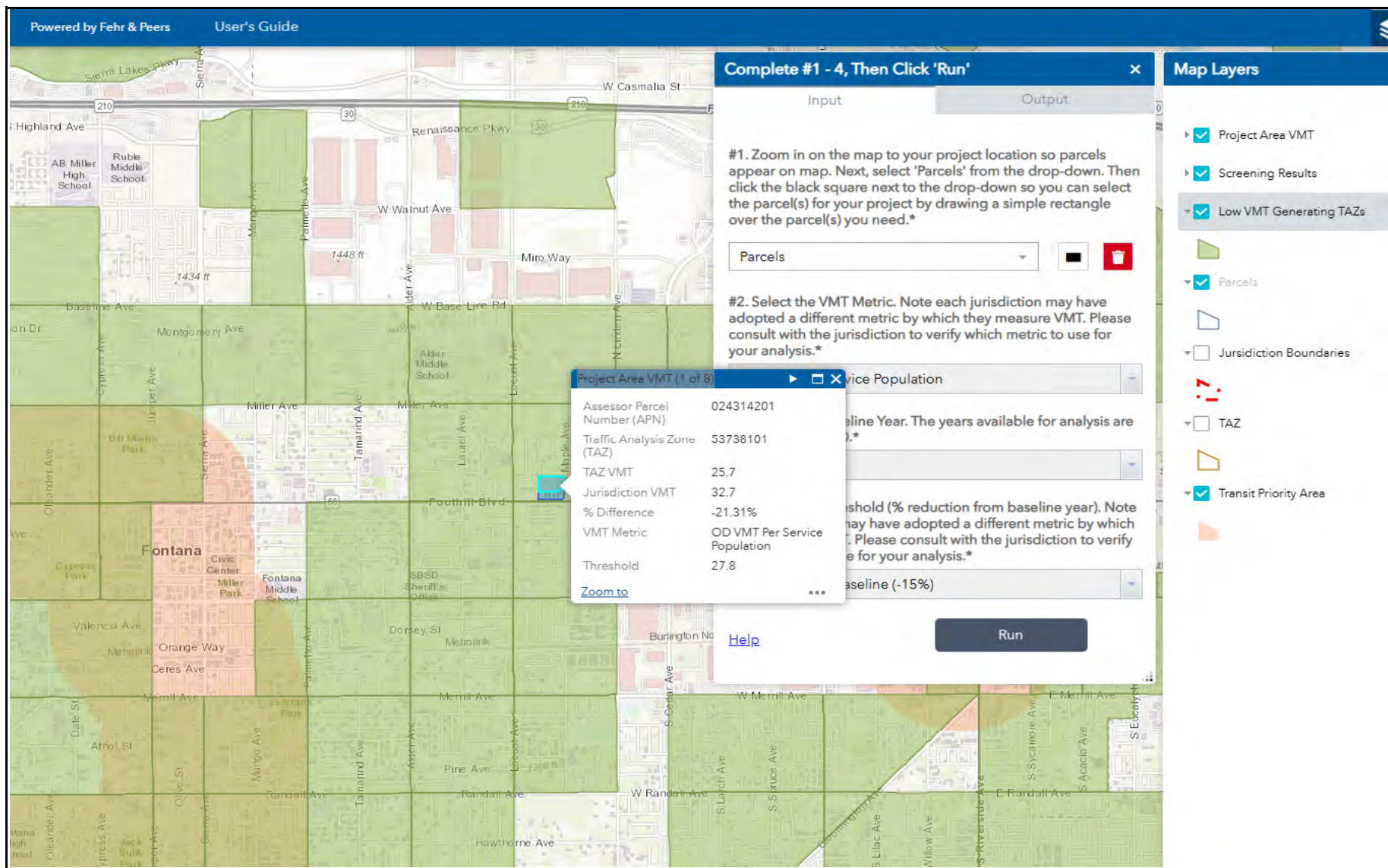


FIGURE 4

Foothill Boulevard and Maple Avenue
SBCTA VMT Screening Tool

Exhibit A

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This letter acknowledges the City of Fontana Engineering Department requirements for traffic impact analysis of the following project. The analysis must follow the SBCTA Congestion Management Plan (CMP) Guidelines Updated 2016.

Case No. (i.e. TR, PM, CUP, PP) _____

Related Cases -

SP No. _____

EIR No. _____

GPA No. _____

CZ No. _____

Project Name: Foothill Boulevard and Maple Avenue

Project Address: Northwest corner of Foothill Boulevard and Maple Avenue

Project Description: 270 Unit Multi Family Residential Development

Consultant

Name: Translutions, Inc.

Address: 17632 Irvine Blvd. Suite 200, Tustin 92780

Telephone: 949 656 3131

Fax: _____

Developer

Diversified Pacific

10621 Civic Center Dr,
Rancho Cucamongo, CA 91730

A. Trip Generation Source: (ITE 11th Edition)

Current GP Land Use

Proposed Land Use

ITE LU 220 Multifamily Housing Low Rise

Current Zoning

Proposed Zoning

Current Trip Generation

Proposed Trip Generation

In Out Total

In Out Total

AM Trips

26 82 108

PM Trips

87 51 138

Internal Trip Allowance ☐ Yes

☐ No (_____ % Trip Discount)

Pass-By Trip Allowance ☐ Yes

☐ No (_____ % Trip Discount)

A pass-by trip discount is allowed for appropriate land uses per ITE trip generation handbook 3rd edition. The pass-by trips at adjacent study area intersections and project driveways shall be indicated on a report figure. (Attach table for detailed trip generation)

B. Trip Geographic Distribution: N 30 % S 30 % E 20 % W 20 %
(attach exhibit for detailed assignment)

C. Background Traffic

Project Opening & Future Build-Out Year: Opening Year - 2025

Annual Ambient Growth Rate: 2 %

Future Build-out Year 2045

Phase Year(s) _____

Other area projects to be analyzed: Based on City's Capital Improvement Program and Cumulative Projects list provided by the City

Model/Forecast methodology Refer to Scoping Letter.

Exhibit B – Scoping Agreement – Page 2

D. Study intersections: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

- | | |
|-----------------------------------|-----------|
| 1. Driveway 1 / W Foothill Blvd | 6. _____ |
| 2. N Maple Ave / Driveway 2 | 7. _____ |
| 3. N Maple Ave / W Foothill Blvd | 8. _____ |
| 4. N Linden Ave / W Foothill Blvd | 9. _____ |
| 5. _____ | 10. _____ |

E. Study Roadway Segments: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

E. Other Jurisdictional Impacts

Is this project within a City's Sphere of Influence or one-mile radius of City boundaries? ☒ Yes ☐ No

If so, name of City Jurisdiction: Rialto

F. Site Plan (please attach reduced copy)

G. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Engineering Department)

(NOTE: If the traffic study states that "a traffic signal is warranted" (or "a traffic signal appears to be warranted," or similar statement) at an existing unsignalized intersection under existing conditions, 8-hour approach traffic volume information must be submitted in addition to the peak hourly turning movement counts for that intersection.)

H. Existing Conditions

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.
Date of counts _____

Recommended by:

Deepali Chausalkar 11/30/2023
Consultant's Representative Date

Approved Scoping Agreement:

City of Fontana Traffic Engineer Date

Scoping Agreement Submitted on 11/30/2023

Revised on _____

APPENDIX B: TRAFFIC COUNTS

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti AM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

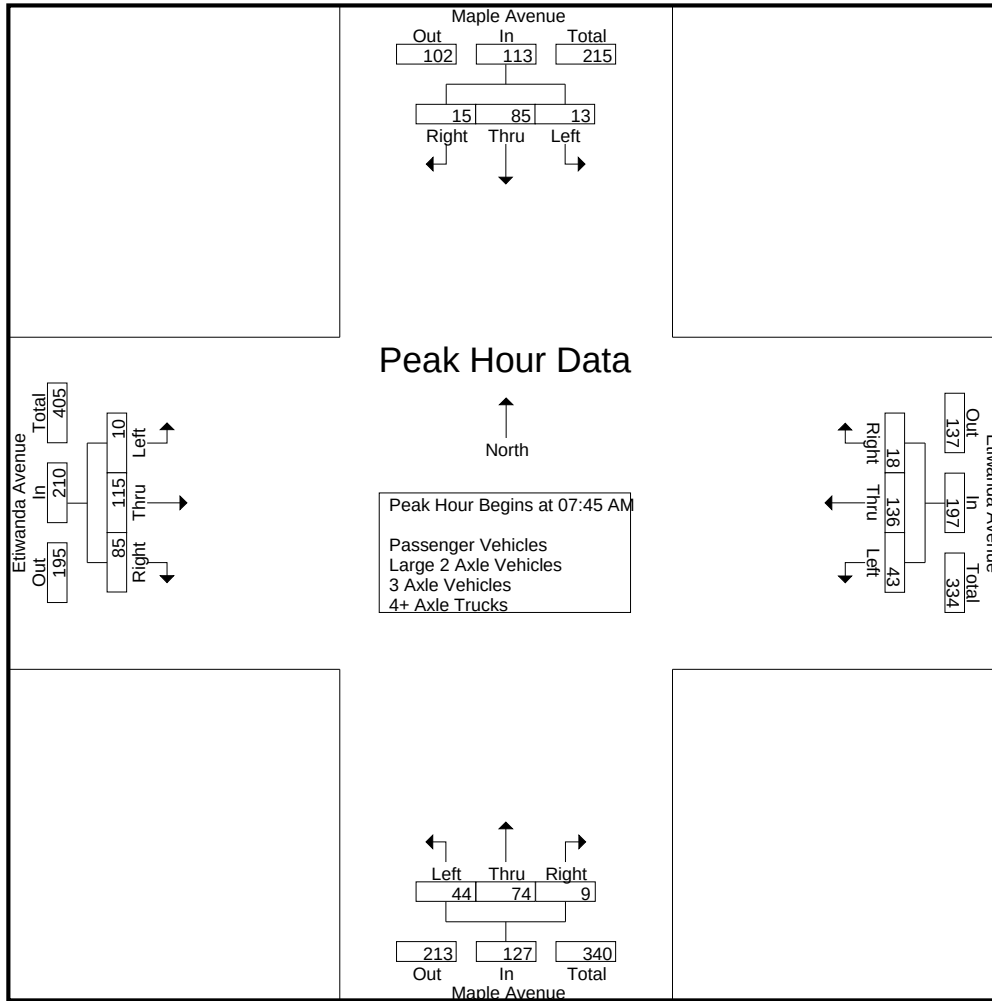
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	4	5	12	1	18	3	22	1	23	0	24	1	12	2	15	73
07:15 AM	1	10	8	19	0	26	2	28	9	13	1	23	2	12	2	16	86
07:30 AM	3	13	7	23	5	37	1	43	10	26	1	37	0	31	7	38	141
07:45 AM	2	25	8	35	7	33	1	41	14	20	2	36	2	34	15	51	163
Total	9	52	28	89	13	114	7	134	34	82	4	120	5	89	26	120	463
08:00 AM	1	25	3	29	11	33	5	49	10	18	2	30	2	37	18	57	165
08:15 AM	3	18	4	25	12	31	7	50	12	20	3	35	3	18	23	44	154
08:30 AM	7	17	0	24	13	39	5	57	8	16	2	26	3	26	29	58	165
08:45 AM	3	15	7	25	4	22	7	33	7	10	2	19	2	18	13	33	110
Total	14	75	14	103	40	125	24	189	37	64	9	110	10	99	83	192	594
Grand Total	23	127	42	192	53	239	31	323	71	146	13	230	15	188	109	312	1057
Apprch %	12	66.1	21.9		16.4	74	9.6		30.9	63.5	5.7		4.8	60.3	34.9		
Total %	2.2	12	4	18.2	5	22.6	2.9	30.6	6.7	13.8	1.2	21.8	1.4	17.8	10.3	29.5	
Passenger Vehicles	23	127	41	191	53	233	28	314	71	142	13	226	14	187	103	304	1035
% Passenger Vehicles	100	100	97.6	99.5	100	97.5	90.3	97.2	100	97.3	100	98.3	93.3	99.5	94.5	97.4	97.9
Large 2 Axle Vehicles	0	0	1	1	0	6	2	8	0	3	0	3	1	1	6	8	20
% Large 2 Axle Vehicles	0	0	2.4	0.5	0	2.5	6.5	2.5	0	2.1	0	1.3	6.7	0.5	5.5	2.6	1.9
3 Axle Vehicles	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
% 3 Axle Vehicles	0	0	0	0	0	0	3.2	0.3	0	0	0	0	0	0	0	0	0.1
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0.7	0	0.4	0	0	0	0	0.1

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	2	25	8	35	7	33	1	41	14	20	2	36	2	34	15	51	163
08:00 AM	1	25	3	29	11	33	5	49	10	18	2	30	2	37	18	57	165
08:15 AM	3	18	4	25	12	31	7	50	12	20	3	35	3	18	23	44	154
08:30 AM	7	17	0	24	13	39	5	57	8	16	2	26	3	26	29	58	165
Total Volume	13	85	15	113	43	136	18	197	44	74	9	127	10	115	85	210	647
% App. Total	11.5	75.2	13.3		21.8	69	9.1		34.6	58.3	7.1		4.8	54.8	40.5		
PHF	.464	.850	.469	.807	.827	.872	.643	.864	.786	.925	.750	.882	.833	.777	.733	.905	.980

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti AM
Site Code : 99924434
Start Date : 5/15/2024
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:

	07:45 AM				07:45 AM				07:30 AM				07:45 AM			
+0 mins.	2	25	8	35	7	33	1	41	10	26	1	37	2	34	15	51
+15 mins.	1	25	3	29	11	33	5	49	14	20	2	36	2	37	18	57
+30 mins.	3	18	4	25	12	31	7	50	10	18	2	30	3	18	23	44
+45 mins.	7	17	0	24	13	39	5	57	12	20	3	35	3	26	29	58
Total Volume	13	85	15	113	43	136	18	197	46	84	8	138	10	115	85	210
% App. Total	11.5	75.2	13.3		21.8	69	9.1		33.3	60.9	5.8		4.8	54.8	40.5	
PHF	.464	.850	.469	.807	.827	.872	.643	.864	.821	.808	.667	.932	.833	.777	.733	.905

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
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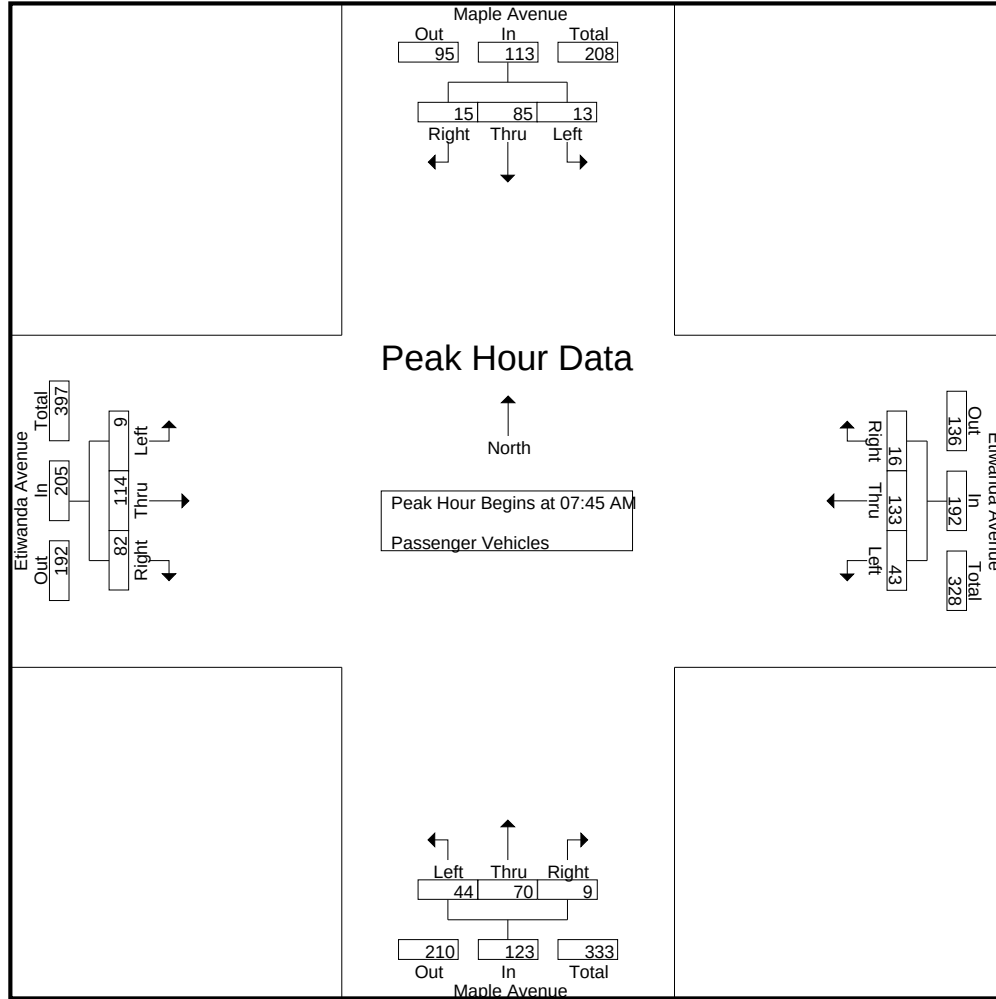
Groups Printed- Passenger Vehicles

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	4	5	12	1	17	3	21	1	23	0	24	1	12	1	14	71
07:15 AM	1	10	8	19	0	26	2	28	9	13	1	23	2	12	1	15	85
07:30 AM	3	13	6	22	5	37	1	43	10	26	1	37	0	31	7	38	140
07:45 AM	2	25	8	35	7	32	1	40	14	18	2	34	2	33	15	50	159
Total	9	52	27	88	13	112	7	132	34	80	4	118	5	88	24	117	455
08:00 AM	1	25	3	29	11	33	5	49	10	17	2	29	1	37	18	56	163
08:15 AM	3	18	4	25	12	29	7	48	12	20	3	35	3	18	22	43	151
08:30 AM	7	17	0	24	13	39	3	55	8	15	2	25	3	26	27	56	160
08:45 AM	3	15	7	25	4	20	6	30	7	10	2	19	2	18	12	32	106
Total	14	75	14	103	40	121	21	182	37	62	9	108	9	99	79	187	580
Grand Total	23	127	41	191	53	233	28	314	71	142	13	226	14	187	103	304	1035
Apprch %	12	66.5	21.5		16.9	74.2	8.9		31.4	62.8	5.8		4.6	61.5	33.9		
Total %	2.2	12.3	4	18.5	5.1	22.5	2.7	30.3	6.9	13.7	1.3	21.8	1.4	18.1	10	29.4	

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	2	25	8	35	7	32	1	40	14	18	2	34	2	33	15	50	159
08:00 AM	1	25	3	29	11	33	5	49	10	17	2	29	1	37	18	56	163
08:15 AM	3	18	4	25	12	29	7	48	12	20	3	35	3	18	22	43	151
08:30 AM	7	17	0	24	13	39	3	55	8	15	2	25	3	26	27	56	160
Total Volume	13	85	15	113	43	133	16	192	44	70	9	123	9	114	82	205	633
% App. Total	11.5	75.2	13.3		22.4	69.3	8.3		35.8	56.9	7.3		4.4	55.6	40		
PHF	.464	.850	.469	.807	.827	.853	.571	.873	.786	.875	.750	.879	.750	.770	.759	.915	.971

City of Fontana
N/S: Maple Avenue
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	2	25	8	35	7	32	1	40	14	18	2	34	2	33	15	50
+15 mins.	1	25	3	29	11	33	5	49	10	17	2	29	1	37	18	56
+30 mins.	3	18	4	25	12	29	7	48	12	20	3	35	3	18	22	43
+45 mins.	7	17	0	24	13	39	3	55	8	15	2	25	3	26	27	56
Total Volume	13	85	15	113	43	133	16	192	44	70	9	123	9	114	82	205
% App. Total	11.5	75.2	13.3		22.4	69.3	8.3		35.8	56.9	7.3		4.4	55.6	40	
PHF	.464	.850	.469	.807	.827	.853	.571	.873	.786	.875	.750	.879	.750	.770	.759	.915

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti AM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

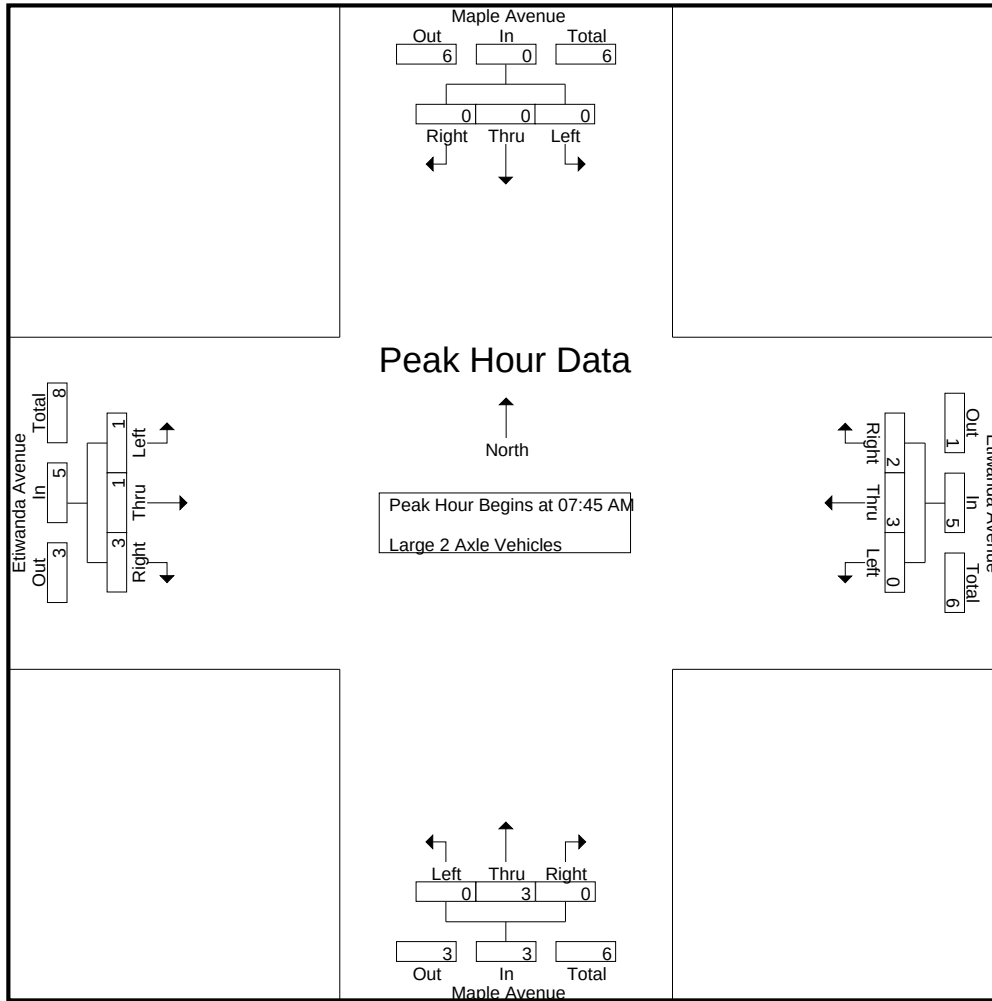
Groups Printed- Large 2 Axle Vehicles

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
07:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	3
Total	0	0	1	1	0	2	0	2	0	1	0	1	0	1	2	3	7
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	1	3
08:30 AM	0	0	0	0	0	0	2	2	0	1	0	1	0	0	2	2	5
08:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	1	3
Total	0	0	0	0	0	4	2	6	0	2	0	2	1	0	4	5	13
Grand Total	0	0	1	1	0	6	2	8	0	3	0	3	1	1	6	8	20
Apprch %	0	0	100		0	75	25		0	100	0		12.5	12.5	75		
Total %	0	0	5	5	0	30	10	40	0	15	0	15	5	5	30	40	

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	1	3
08:30 AM	0	0	0	0	0	0	2	2	0	1	0	1	0	0	2	2	5
Total Volume	0	0	0	0	0	3	2	5	0	3	0	3	1	1	3	5	13
% App. Total	0	0	0		0	60	40		0	100	0		20	20	60		
PHF	.000	.000	.000	.000	.000	.375	.250	.625	.000	.750	.000	.750	.250	.250	.375	.625	.650

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti AM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	2	2	0	1	0	1	0	0	2	2
Total Volume	0	0	0	0	0	3	2	5	0	3	0	3	1	1	3	5
% App. Total	0	0	0	0	0	60	40		0	100	0		20	20	60	
PHF	.000	.000	.000	.000	.000	.375	.250	.625	.000	.750	.000	.750	.250	.250	.375	.625

File Name : 01_FON_Map_Eti AM
Site Code : 99924434
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City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti AM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

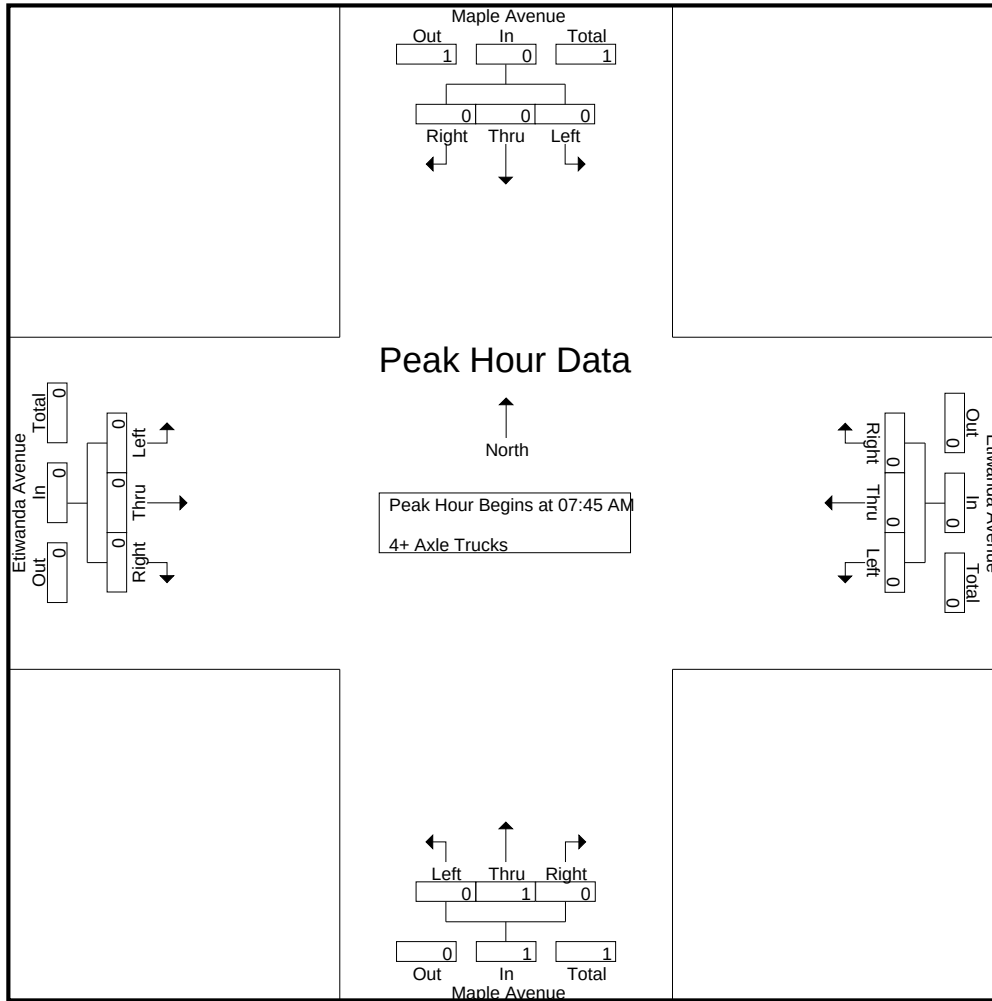
Groups Printed- 4+ Axle Trucks

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0		
Total %	0	0	0	0	0	0	0	0	0	100	0	100	0	0	0	0	

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti AM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti PM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

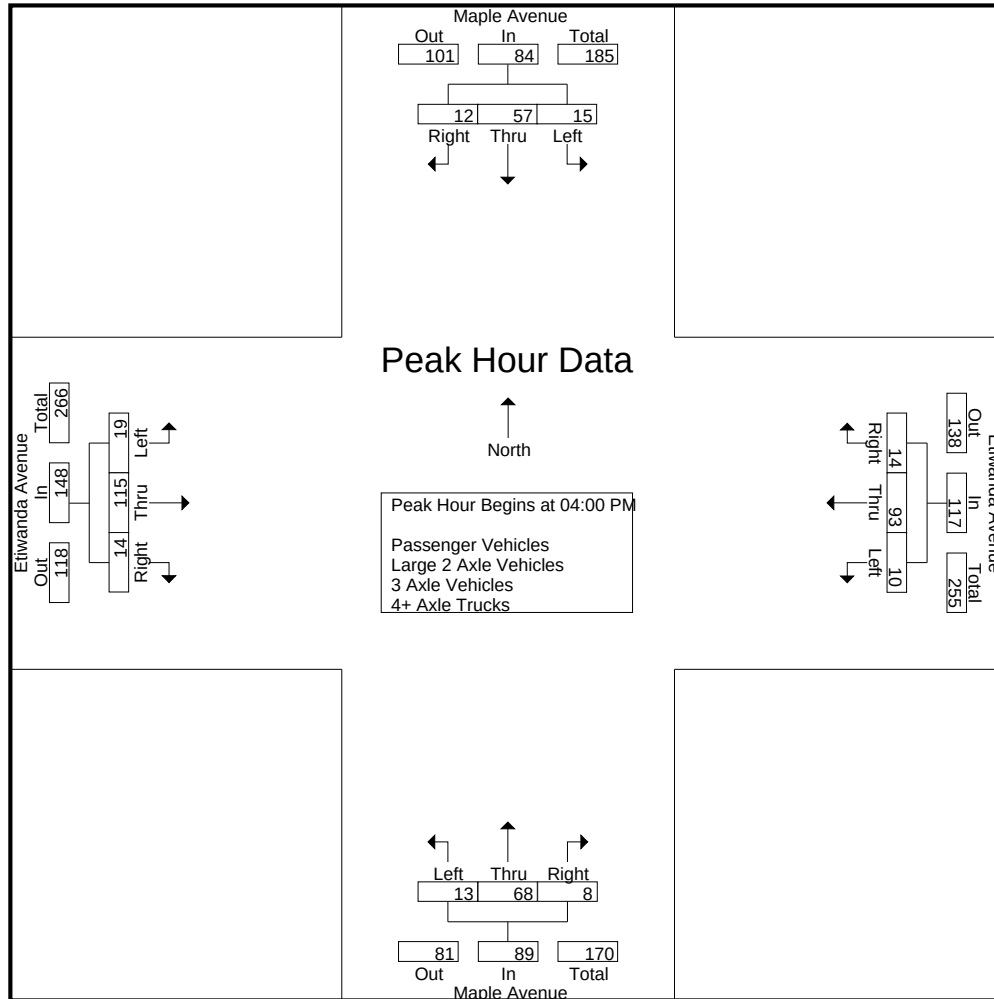
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	15	3	22	2	27	2	31	6	21	1	28	4	27	6	37	118
04:15 PM	3	20	2	25	3	14	4	21	3	18	0	21	11	33	3	47	114
04:30 PM	4	13	5	22	3	27	3	33	2	18	3	23	3	24	3	30	108
04:45 PM	4	9	2	15	2	25	5	32	2	11	4	17	1	31	2	34	98
Total	15	57	12	84	10	93	14	117	13	68	8	89	19	115	14	148	438
05:00 PM	2	11	2	15	2	33	1	36	4	11	1	16	2	33	6	41	108
05:15 PM	1	9	3	13	5	25	3	33	3	13	5	21	2	37	4	43	110
05:30 PM	3	10	1	14	3	19	5	27	1	14	5	20	7	31	3	41	102
05:45 PM	5	9	1	15	5	32	4	41	2	9	3	14	5	36	1	42	112
Total	11	39	7	57	15	109	13	137	10	47	14	71	16	137	14	167	432
Grand Total	26	96	19	141	25	202	27	254	23	115	22	160	35	252	28	315	870
Apprch %	18.4	68.1	13.5		9.8	79.5	10.6		14.4	71.9	13.8		11.1	80	8.9		
Total %	3	11	2.2	16.2	2.9	23.2	3.1	29.2	2.6	13.2	2.5	18.4	4	29	3.2	36.2	
Passenger Vehicles	26	94	18	138	25	201	26	252	22	115	22	159	35	252	27	314	863
% Passenger Vehicles	100	97.9	94.7	97.9	100	99.5	96.3	99.2	95.7	100	100	99.4	100	100	96.4	99.7	99.2
Large 2 Axle Vehicles	0	1	0	1	0	0	0	0	1	0	0	1	0	0	1	1	3
% Large 2 Axle Vehicles	0	1	0	0.7	0	0	0	0	4.3	0	0	0.6	0	0	3.6	0.3	0.3
3 Axle Vehicles	0	1	1	2	0	1	1	2	0	0	0	0	0	0	0	0	4
% 3 Axle Vehicles	0	1	5.3	1.4	0	0.5	3.7	0.8	0	0	0	0	0	0	0	0	0.5
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	4	15	3	22	2	27	2	31	6	21	1	28	4	27	6	37	118
04:15 PM	3	20	2	25	3	14	4	21	3	18	0	21	11	33	3	47	114
04:30 PM	4	13	5	22	3	27	3	33	2	18	3	23	3	24	3	30	108
04:45 PM	4	9	2	15	2	25	5	32	2	11	4	17	1	31	2	34	98
Total Volume	15	57	12	84	10	93	14	117	13	68	8	89	19	115	14	148	438
% App. Total	17.9	67.9	14.3		8.5	79.5	12		14.6	76.4	9		12.8	77.7	9.5		
PHF	.938	.713	.600	.840	.833	.861	.700	.886	.542	.810	.500	.795	.432	.871	.583	.787	.928

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti PM
Site Code : 99924434
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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				05:00 PM				04:00 PM				05:00 PM			
+0 mins.	4	15	3	22	2	33	1	36	6	21	1	28	2	33	6	41
+15 mins.	3	20	2	25	5	25	3	33	3	18	0	21	2	37	4	43
+30 mins.	4	13	5	22	3	19	5	27	2	18	3	23	7	31	3	41
+45 mins.	4	9	2	15	5	32	4	41	2	11	4	17	5	36	1	42
Total Volume	15	57	12	84	15	109	13	137	13	68	8	89	16	137	14	167
% App. Total	17.9	67.9	14.3		10.9	79.6	9.5		14.6	76.4	9		9.6	82	8.4	
PHF	.938	.713	.600	.840	.750	.826	.650	.835	.542	.810	.500	.795	.571	.926	.583	.971

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti PM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

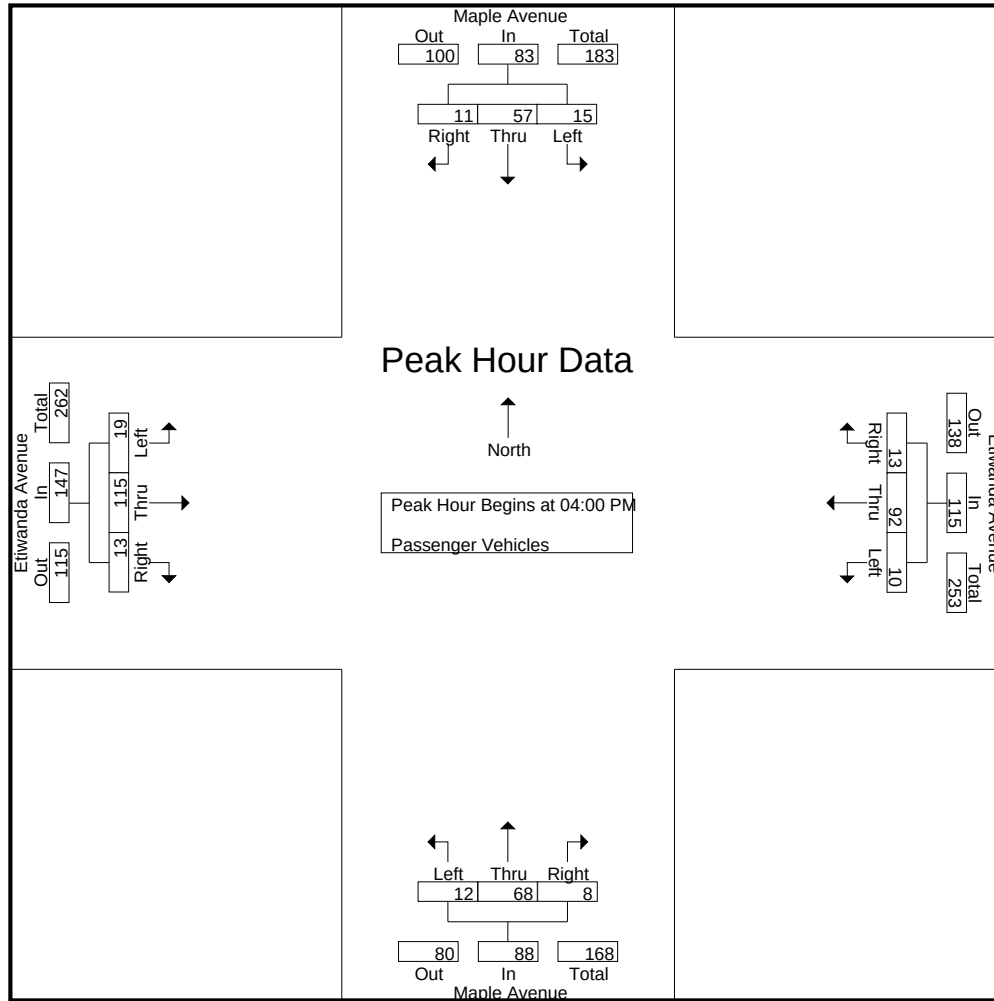
Groups Printed- Passenger Vehicles

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	15	3	22	2	27	2	31	6	21	1	28	4	27	6	37	118
04:15 PM	3	20	2	25	3	14	4	21	3	18	0	21	11	33	2	46	113
04:30 PM	4	13	4	21	3	26	3	32	2	18	3	23	3	24	3	30	106
04:45 PM	4	9	2	15	2	25	4	31	1	11	4	16	1	31	2	34	96
Total	15	57	11	83	10	92	13	115	12	68	8	88	19	115	13	147	433
05:00 PM	2	11	2	15	2	33	1	36	4	11	1	16	2	33	6	41	108
05:15 PM	1	8	3	12	5	25	3	33	3	13	5	21	2	37	4	43	109
05:30 PM	3	10	1	14	3	19	5	27	1	14	5	20	7	31	3	41	102
05:45 PM	5	8	1	14	5	32	4	41	2	9	3	14	5	36	1	42	111
Total	11	37	7	55	15	109	13	137	10	47	14	71	16	137	14	167	430
Grand Total	26	94	18	138	25	201	26	252	22	115	22	159	35	252	27	314	863
Apprch %	18.8	68.1	13		9.9	79.8	10.3		13.8	72.3	13.8		11.1	80.3	8.6		
Total %	3	10.9	2.1	16	2.9	23.3	3	29.2	2.5	13.3	2.5	18.4	4.1	29.2	3.1	36.4	

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	4	15	3	22	2	27	2	31	6	21	1	28	4	27	6	37	118
04:15 PM	3	20	2	25	3	14	4	21	3	18	0	21	11	33	2	46	113
04:30 PM	4	13	4	21	3	26	3	32	2	18	3	23	3	24	3	30	106
04:45 PM	4	9	2	15	2	25	4	31	1	11	4	16	1	31	2	34	96
Total Volume	15	57	11	83	10	92	13	115	12	68	8	88	19	115	13	147	433
% App. Total	18.1	68.7	13.3		8.7	80	11.3		13.6	77.3	9.1		12.9	78.2	8.8		
PHF	.938	.713	.688	.830	.833	.852	.813	.898	.500	.810	.500	.786	.432	.871	.542	.799	.917

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti PM
Site Code : 99924434
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	4	15	3	22	2	27	2	31	6	21	1	28	4	27	6	37
+15 mins.	3	20	2	25	3	14	4	21	3	18	0	21	11	33	2	46
+30 mins.	4	13	4	21	3	26	3	32	2	18	3	23	3	24	3	30
+45 mins.	4	9	2	15	2	25	4	31	1	11	4	16	1	31	2	34
Total Volume	15	57	11	83	10	92	13	115	12	68	8	88	19	115	13	147
% App. Total	18.1	68.7	13.3		8.7	80	11.3		13.6	77.3	9.1		12.9	78.2	8.8	
PHF	.938	.713	.688	.830	.833	.852	.813	.898	.500	.810	.500	.786	.432	.871	.542	.799

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti PM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

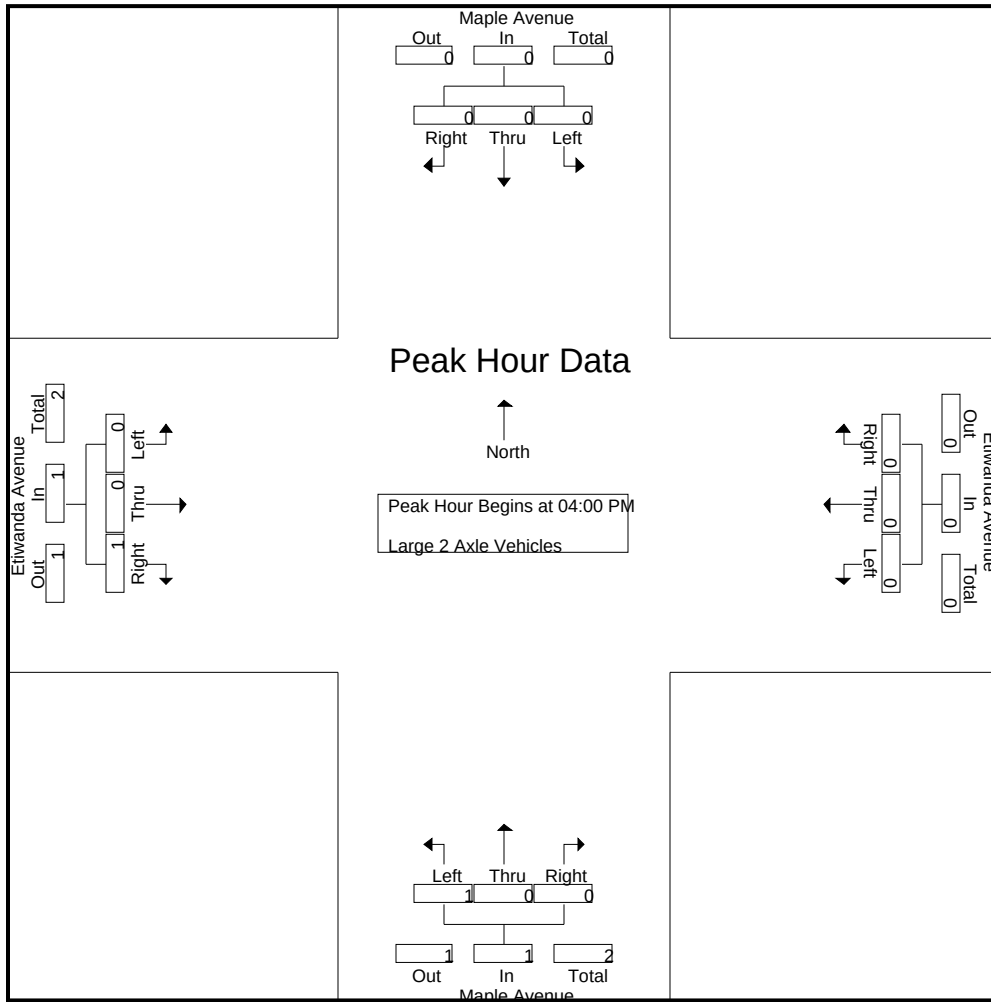
Groups Printed- Large 2 Axle Vehicles

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	1	0	0	0	0	1	0	0	1	0	0	1	1	3
Apprch %	0	100	0		0	0	0		100	0	0		0	0	100		
Total %	0	33.3	0	33.3	0	0	0	0	33.3	0	0	33.3	0	0	33.3	33.3	

	Maple Avenue Southbound				Etiwanda Avenue Westbound				Maple Avenue Northbound				Etiwanda Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
% App. Total	0	0	0		0	0	0		100	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250	.500

City of Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue
Weather: Clear

File Name : 01_FON_Map_Eti PM
Site Code : 99924434
Start Date : 5/15/2024
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1
% App. Total	0	0	0	0	0	0	0	0	100	0	0	100	0	0	100	100
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250

File Name : 01_FON_Map_Eti PM
Site Code : 99924434
Start Date : 5/15/2024
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File Name : 01_FON_Map_Eti PM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

Location: Fontana
 N/S: Maple Avenue
 E/W: Etiwanda Avenue



Date: 5/15/2024
 Day: Wednesday

PEDESTRIANS

		North Leg Maple Avenue	East Leg Etiwanda Avenue	South Leg Maple Avenue	West Leg Etiwanda Avenue	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	7:00 AM	0	0	3	0	3
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	1	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	1	2	0	3
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	TOTAL VOLUMES:	0	1	5	1	7

		North Leg Maple Avenue	East Leg Etiwanda Avenue	South Leg Maple Avenue	West Leg Etiwanda Avenue	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	4:00 PM	0	0	0	0	0
	4:15 PM	1	0	1	0	2
	4:30 PM	1	0	0	0	1
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	2	0	0	2
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL VOLUMES:	2	2	1	0	5

Location: Fontana
N/S: Maple Avenue
E/W: Etiwanda Avenue



Date: 5/15/2024
Day: Wednesday

BICYCLES

		Southbound Maple Avenue			Westbound Etiwanda Avenue			Northbound Maple Avenue			Eastbound Etiwanda Avenue			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	1	0	0	0	0	0	0	0	1

		Southbound Maple Avenue			Westbound Etiwanda Avenue			Northbound Maple Avenue			Eastbound Etiwanda Avenue			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
TOTAL VOLUMES:		0	3	0	0	1	1	0	0	0	0	0	0	5

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot AM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

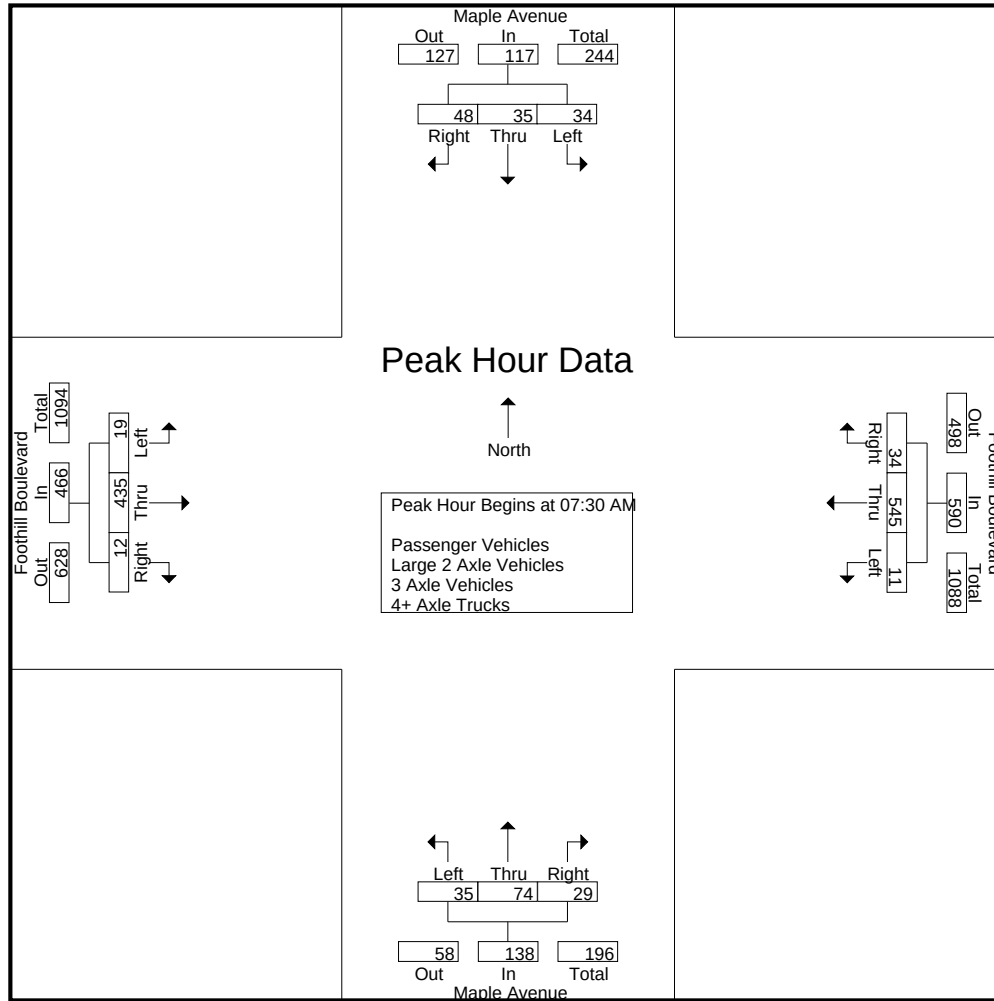
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	5	3	13	2	113	3	118	7	15	3	25	1	62	1	64	220
07:15 AM	5	3	6	14	3	146	6	155	9	12	10	31	2	63	0	65	265
07:30 AM	9	7	10	26	1	145	7	153	12	17	6	35	2	105	3	110	324
07:45 AM	8	13	10	31	3	170	8	181	9	22	10	41	8	118	5	131	384
Total	27	28	29	84	9	574	24	607	37	66	29	132	13	348	9	370	1193
08:00 AM	11	7	17	35	2	126	10	138	7	18	8	33	5	112	2	119	325
08:15 AM	6	8	11	25	5	104	9	118	7	17	5	29	4	100	2	106	278
08:30 AM	5	9	11	25	4	93	9	106	2	19	12	33	7	84	3	94	258
08:45 AM	10	11	11	32	4	123	8	135	5	7	7	19	5	72	1	78	264
Total	32	35	50	117	15	446	36	497	21	61	32	114	21	368	8	397	1125
Grand Total	59	63	79	201	24	1020	60	1104	58	127	61	246	34	716	17	767	2318
Apprch %	29.4	31.3	39.3		2.2	92.4	5.4		23.6	51.6	24.8		4.4	93.4	2.2		
Total %	2.5	2.7	3.4	8.7	1	44	2.6	47.6	2.5	5.5	2.6	10.6	1.5	30.9	0.7	33.1	
Passenger Vehicles	58	63	77	198	23	996	60	1079	56	124	58	238	31	687	17	735	2250
% Passenger Vehicles	98.3	100	97.5	98.5	95.8	97.6	100	97.7	96.6	97.6	95.1	96.7	91.2	95.9	100	95.8	97.1
Large 2 Axle Vehicles	1	0	1	2	1	13	0	14	2	3	3	8	3	18	0	21	45
% Large 2 Axle Vehicles	1.7	0	1.3	1	4.2	1.3	0	1.3	3.4	2.4	4.9	3.3	8.8	2.5	0	2.7	1.9
3 Axle Vehicles	0	0	0	0	0	4	0	4	0	0	0	0	0	7	0	7	11
% 3 Axle Vehicles	0	0	0	0	0	0.4	0	0.4	0	0	0	0	0	1	0	0.9	0.5
4+ Axle Trucks	0	0	1	1	0	7	0	7	0	0	0	0	0	4	0	4	12
% 4+ Axle Trucks	0	0	1.3	0.5	0	0.7	0	0.6	0	0	0	0	0	0.6	0	0.5	0.5

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	9	7	10	26	1	145	7	153	12	17	6	35	2	105	3	110	324
07:45 AM	8	13	10	31	3	170	8	181	9	22	10	41	8	118	5	131	384
08:00 AM	11	7	17	35	2	126	10	138	7	18	8	33	5	112	2	119	325
08:15 AM	6	8	11	25	5	104	9	118	7	17	5	29	4	100	2	106	278
Total Volume	34	35	48	117	11	545	34	590	35	74	29	138	19	435	12	466	1311
% App. Total	29.1	29.9	41		1.9	92.4	5.8		25.4	53.6	21		4.1	93.3	2.6		
PHF	.773	.673	.706	.836	.550	.801	.850	.815	.729	.841	.725	.841	.594	.922	.600	.889	.854

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot AM
Site Code : 99924434
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:30 AM			
+0 mins.	9	7	10	26	3	146	6	155	9	12	10	31	2	105	3	110
+15 mins.	8	13	10	31	1	145	7	153	12	17	6	35	8	118	5	131
+30 mins.	11	7	17	35	3	170	8	181	9	22	10	41	5	112	2	119
+45 mins.	6	8	11	25	2	126	10	138	7	18	8	33	4	100	2	106
Total Volume	34	35	48	117	9	587	31	627	37	69	34	140	19	435	12	466
% App. Total	29.1	29.9	41		1.4	93.6	4.9		26.4	49.3	24.3		4.1	93.3	2.6	
PHF	.773	.673	.706	.836	.750	.863	.775	.866	.771	.784	.850	.854	.594	.922	.600	.889

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot AM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

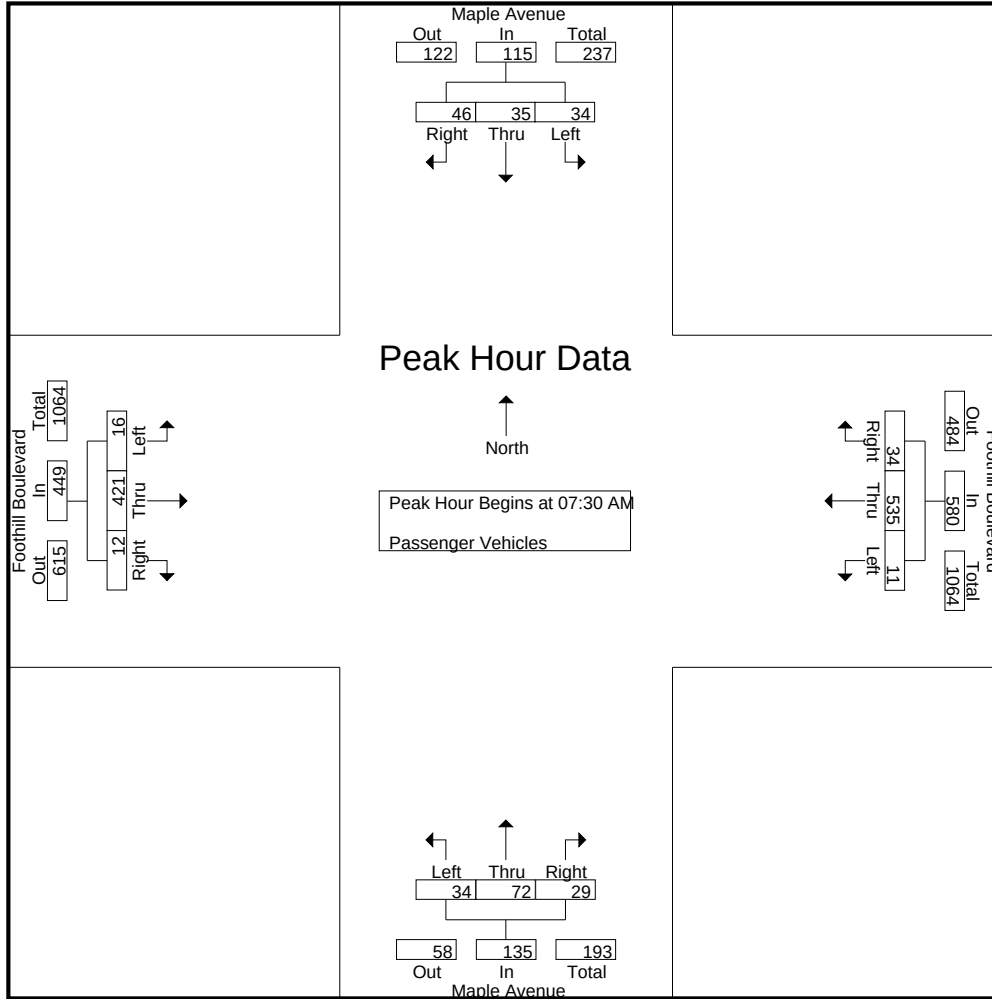
Groups Printed- Passenger Vehicles

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	5	3	12	2	111	3	116	7	15	2	24	1	56	1	58	210
07:15 AM	5	3	6	14	3	140	6	149	9	12	9	30	2	63	0	65	258
07:30 AM	9	7	10	26	1	141	7	149	12	17	6	35	2	100	3	105	315
07:45 AM	8	13	9	30	3	169	8	180	9	22	10	41	7	115	5	127	378
Total	26	28	28	82	9	561	24	594	37	66	27	130	12	334	9	355	1161
08:00 AM	11	7	17	35	2	123	10	135	7	17	8	32	5	109	2	116	318
08:15 AM	6	8	10	24	5	102	9	116	6	16	5	27	2	97	2	101	268
08:30 AM	5	9	11	25	3	89	9	101	2	18	11	31	7	78	3	88	245
08:45 AM	10	11	11	32	4	121	8	133	4	7	7	18	5	69	1	75	258
Total	32	35	49	116	14	435	36	485	19	58	31	108	19	353	8	380	1089
Grand Total	58	63	77	198	23	996	60	1079	56	124	58	238	31	687	17	735	2250
Apprch %	29.3	31.8	38.9		2.1	92.3	5.6		23.5	52.1	24.4		4.2	93.5	2.3		
Total %	2.6	2.8	3.4	8.8	1	44.3	2.7	48	2.5	5.5	2.6	10.6	1.4	30.5	0.8	32.7	

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	9	7	10	26	1	141	7	149	12	17	6	35	2	100	3	105	315
07:45 AM	8	13	9	30	3	169	8	180	9	22	10	41	7	115	5	127	378
08:00 AM	11	7	17	35	2	123	10	135	7	17	8	32	5	109	2	116	318
08:15 AM	6	8	10	24	5	102	9	116	6	16	5	27	2	97	2	101	268
Total Volume	34	35	46	115	11	535	34	580	34	72	29	135	16	421	12	449	1279
% App. Total	29.6	30.4	40		1.9	92.2	5.9		25.2	53.3	21.5		3.6	93.8	2.7		
PHF	.773	.673	.676	.821	.550	.791	.850	.806	.708	.818	.725	.823	.571	.915	.600	.884	.846

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot AM
Site Code : 99924434
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	9	7	10	26	1	141	7	149	12	17	6	35	2	100	3	105
+15 mins.	8	13	9	30	3	169	8	180	9	22	10	41	7	115	5	127
+30 mins.	11	7	17	35	2	123	10	135	7	17	8	32	5	109	2	116
+45 mins.	6	8	10	24	5	102	9	116	6	16	5	27	2	97	2	101
Total Volume	34	35	46	115	11	535	34	580	34	72	29	135	16	421	12	449
% App. Total	29.6	30.4	40		1.9	92.2	5.9		25.2	53.3	21.5		3.6	93.8	2.7	
PHF	.773	.673	.676	.821	.550	.791	.850	.806	.708	.818	.725	.823	.571	.915	.600	.884

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot AM
Site Code : 99924434
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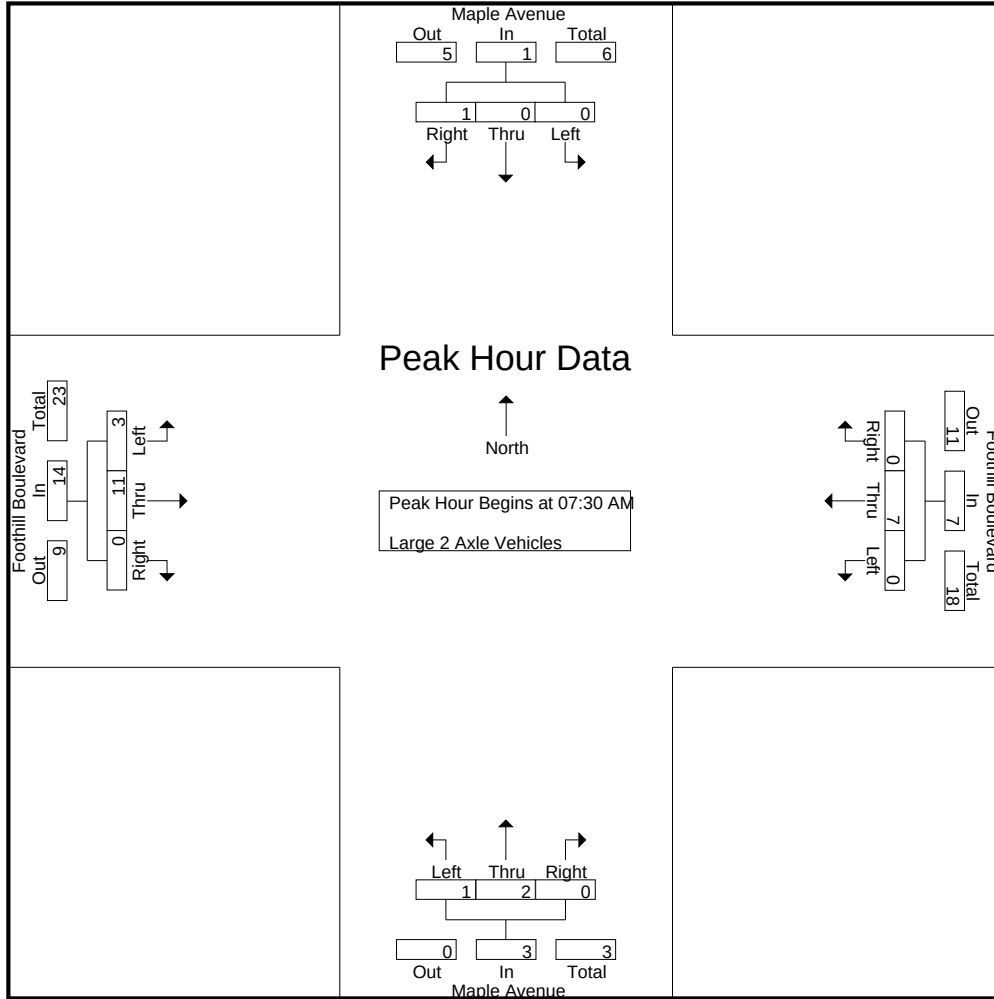
Groups Printed- Large 2 Axle Vehicles

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	2	4
07:15 AM	0	0	0	0	0	2	0	2	0	0	1	1	0	0	0	0	3
07:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	2	3
Total	1	0	0	1	0	6	0	6	0	0	2	2	1	7	0	8	17
08:00 AM	0	0	0	0	0	3	0	3	0	1	0	1	0	3	0	3	7
08:15 AM	0	0	1	1	0	0	0	0	1	1	0	2	2	3	0	5	8
08:30 AM	0	0	0	0	1	3	0	4	0	1	1	2	0	3	0	3	9
08:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	0	2	0	2	4
Total	0	0	1	1	1	7	0	8	2	3	1	6	2	11	0	13	28
Grand Total	1	0	1	2	1	13	0	14	2	3	3	8	3	18	0	21	45
Apprch %	50	0	50		7.1	92.9	0		25	37.5	37.5		14.3	85.7	0		
Total %	2.2	0	2.2	4.4	2.2	28.9	0	31.1	4.4	6.7	6.7	17.8	6.7	40	0	46.7	

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	2	3
08:00 AM	0	0	0	0	0	3	0	3	0	1	0	1	0	3	0	3	7
08:15 AM	0	0	1	1	0	0	0	0	1	1	0	2	2	3	0	5	8
Total Volume	0	0	1	1	0	7	0	7	1	2	0	3	3	11	0	14	25
% App. Total	0	0	100		0	100	0		33.3	66.7	0		21.4	78.6	0		
PHF	.000	.000	.250	.250	.000	.583	.000	.583	.250	.500	.000	.375	.375	.688	.000	.700	.781

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot AM
Site Code : 99924434
Start Date : 5/15/2024
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0
+30 mins.	0	0	0	0	0	3	0	3	0	1	0	1	0	3	0	3
+45 mins.	0	0	1	1	0	0	0	0	1	1	0	2	2	3	0	5
Total Volume	0	0	1	1	0	7	0	7	1	2	0	3	3	11	0	14
% App. Total	0	0	100		0	100	0		33.3	66.7	0		21.4	78.6	0	
PHF	.000	.000	.250	.250	.000	.583	.000	.583	.250	.500	.000	.375	.375	.688	.000	.700

File Name : 02_FON_Map_Foot AM
Site Code : 99924434
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[illegible]

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot AM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 1

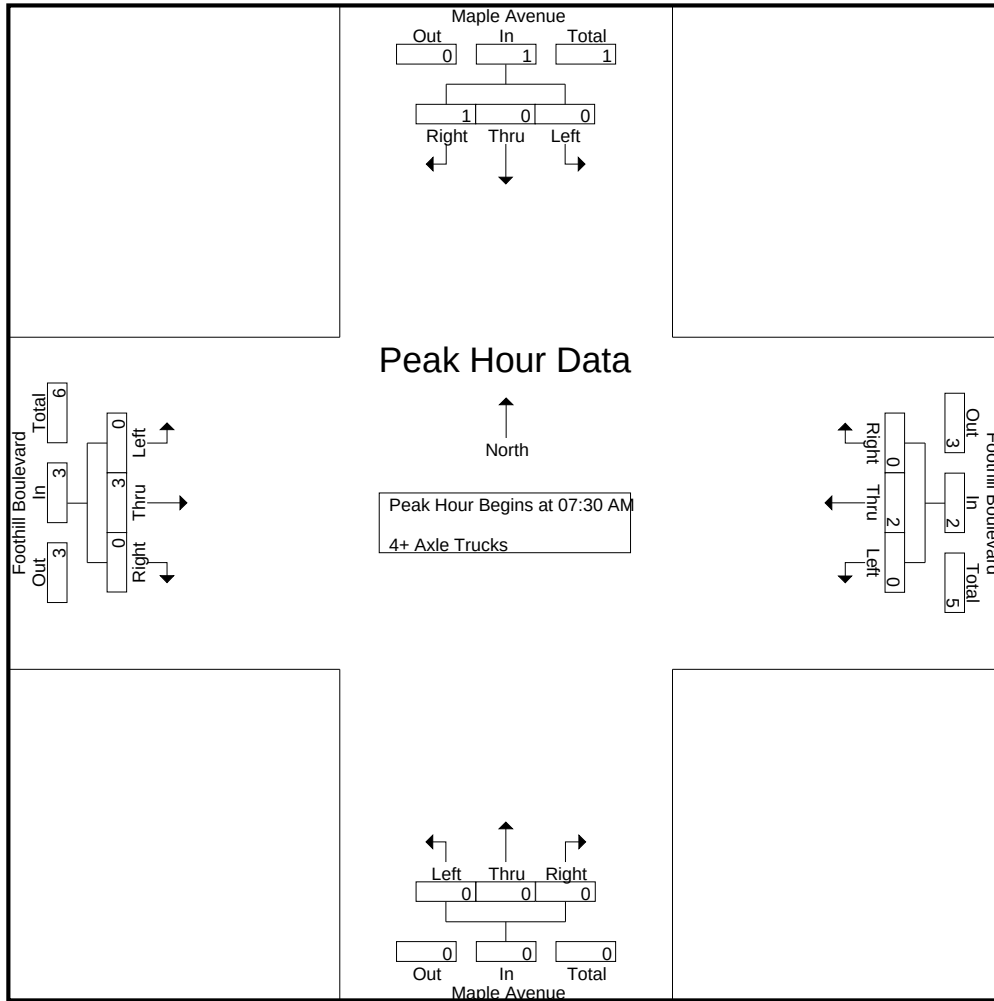
Groups Printed- 4+ Axle Trucks

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	2	3
Total	0	0	1	1	0	4	0	4	0	0	0	0	0	4	0	4	9
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
Grand Total	0	0	1	1	0	7	0	7	0	0	0	0	0	4	0	4	12
Apprch %	0	0	100		0	100	0		0	0	0		0	100	0		
Total %	0	0	8.3	8.3	0	58.3	0	58.3	0	0	0	0	0	33.3	0	33.3	

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	2	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	0	1	1	0	2	0	2	0	0	0	0	0	3	0	3	6
% App. Total	0	0	100		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.000	.375	.000	.375	.500

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
Total Volume	0	0	1	1	0	2	0	2	0	0	0	0	0	3	0	3
% App. Total	0	0	100		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.000	.375	.000	.375

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot PM
Site Code : 99924434
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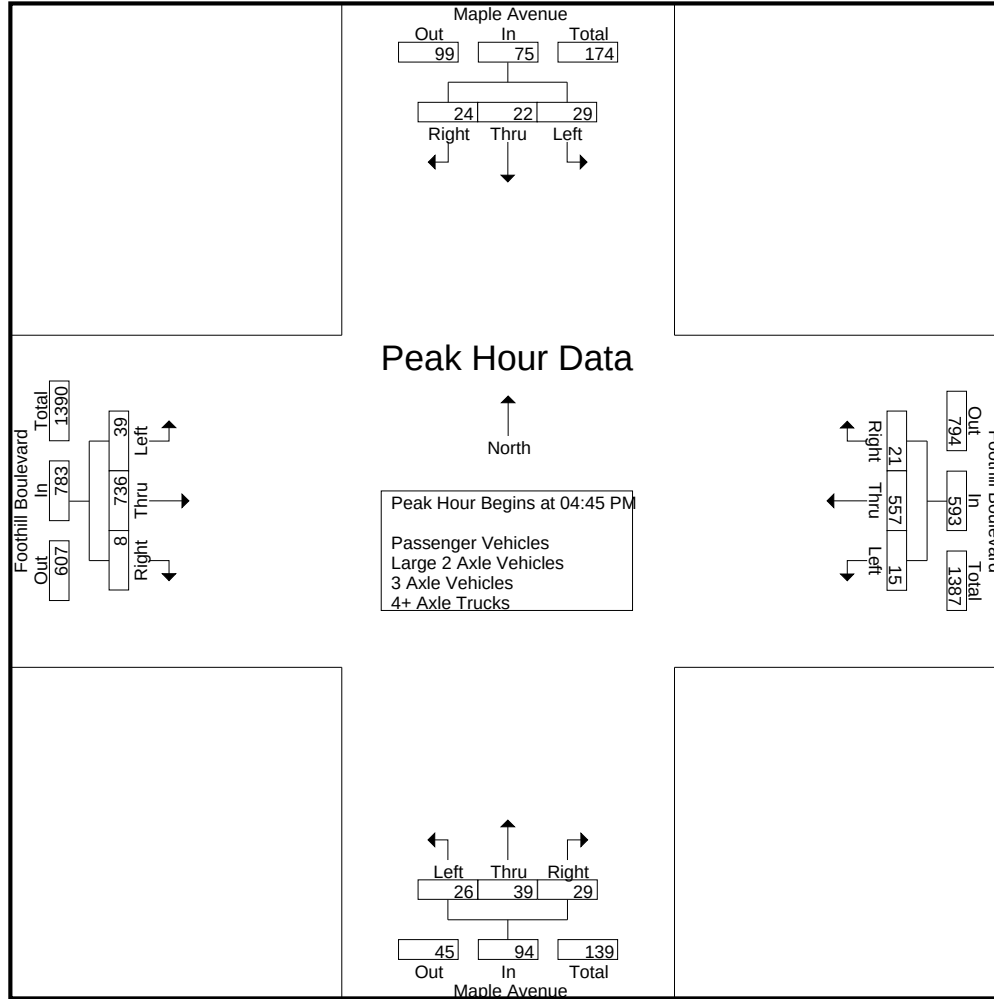
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	9	5	9	23	7	130	5	142	4	10	8	22	8	193	4	205	392
04:15 PM	6	12	12	30	3	131	5	139	10	17	19	46	4	170	3	177	392
04:30 PM	7	7	12	26	5	105	11	121	10	14	9	33	5	155	1	161	341
04:45 PM	5	6	6	17	2	143	4	149	7	5	9	21	9	174	2	185	372
Total	27	30	39	96	17	509	25	551	31	46	45	122	26	692	10	728	1497
05:00 PM	6	6	7	19	6	121	7	134	8	13	6	27	11	179	2	192	372
05:15 PM	7	5	5	17	5	157	6	168	5	8	6	19	11	201	1	213	417
05:30 PM	11	5	6	22	2	136	4	142	6	13	8	27	8	182	3	193	384
05:45 PM	4	2	10	16	3	146	5	154	5	13	5	23	7	146	3	156	349
Total	28	18	28	74	16	560	22	598	24	47	25	96	37	708	9	754	1522
Grand Total	55	48	67	170	33	1069	47	1149	55	93	70	218	63	1400	19	1482	3019
Apprch %	32.4	28.2	39.4		2.9	93	4.1		25.2	42.7	32.1		4.3	94.5	1.3		
Total %	1.8	1.6	2.2	5.6	1.1	35.4	1.6	38.1	1.8	3.1	2.3	7.2	2.1	46.4	0.6	49.1	
Passenger Vehicles	54	48	67	169	33	1051	45	1129	54	93	70	217	63	1377	19	1459	2974
% Passenger Vehicles	98.2	100	100	99.4	100	98.3	95.7	98.3	98.2	100	100	99.5	100	98.4	100	98.4	98.5
Large 2 Axle Vehicles	0	0	0	0	0	12	1	13	0	0	0	0	0	18	0	18	31
% Large 2 Axle Vehicles	0	0	0	0	0	1.1	2.1	1.1	0	0	0	0	0	1.3	0	1.2	1
3 Axle Vehicles	1	0	0	1	0	3	1	4	1	0	0	1	0	4	0	4	10
% 3 Axle Vehicles	1.8	0	0	0.6	0	0.3	2.1	0.3	1.8	0	0	0.5	0	0.3	0	0.3	0.3
4+ Axle Trucks	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
% 4+ Axle Trucks	0	0	0	0	0	0.3	0	0.3	0	0	0	0	0	0.1	0	0.1	0.1

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
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																	
04:45 PM	5	6	6	17	2	143	4	149	7	5	9	21	9	174	2	185	372
05:00 PM	6	6	7	19	6	121	7	134	8	13	6	27	11	179	2	192	372
05:15 PM	7	5	5	17	5	157	6	168	5	8	6	19	11	201	1	213	417
05:30 PM	11	5	6	22	2	136	4	142	6	13	8	27	8	182	3	193	384
Total Volume	29	22	24	75	15	557	21	593	26	39	29	94	39	736	8	783	1545
% App. Total	38.7	29.3	32		2.5	93.9	3.5		27.7	41.5	30.9		5	94	1		
PHF	.659	.917	.857	.852	.625	.887	.750	.882	.813	.750	.806	.870	.886	.915	.667	.919	.926

City of Fontana
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E/W: Foothill Boulevard
Weather: Clear

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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				05:00 PM				04:15 PM				04:45 PM			
+0 mins.	9	5	9	23	6	121	7	134	10	17	19	46	9	174	2	185
+15 mins.	6	12	12	30	5	157	6	168	10	14	9	33	11	179	2	192
+30 mins.	7	7	12	26	2	136	4	142	7	5	9	21	11	201	1	213
+45 mins.	5	6	6	17	3	146	5	154	8	13	6	27	8	182	3	193
Total Volume	27	30	39	96	16	560	22	598	35	49	43	127	39	736	8	783
% App. Total	28.1	31.2	40.6		2.7	93.6	3.7		27.6	38.6	33.9		5	94	1	
PHF	.750	.625	.813	.800	.667	.892	.786	.890	.875	.721	.566	.690	.886	.915	.667	.919

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot PM
Site Code : 99924434
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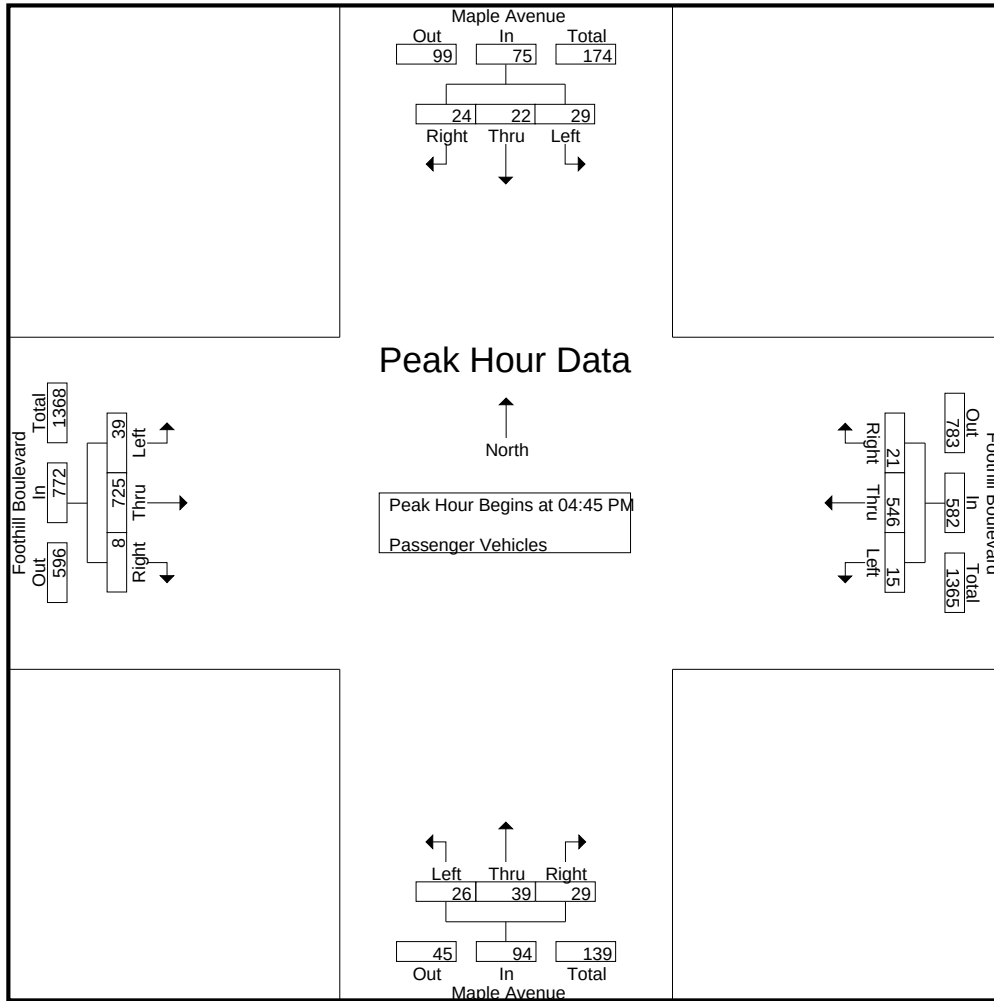
Groups Printed- Passenger Vehicles

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	9	5	9	23	7	129	5	141	4	10	8	22	8	191	4	203	389
04:15 PM	6	12	12	30	3	130	5	138	10	17	19	46	4	164	3	171	385
04:30 PM	6	7	12	25	5	104	10	119	9	14	9	32	5	153	1	159	335
04:45 PM	5	6	6	17	2	141	4	147	7	5	9	21	9	172	2	183	368
Total	26	30	39	95	17	504	24	545	30	46	45	121	26	680	10	716	1477
05:00 PM	6	6	7	19	6	118	7	131	8	13	6	27	11	177	2	190	367
05:15 PM	7	5	5	17	5	154	6	165	5	8	6	19	11	197	1	209	410
05:30 PM	11	5	6	22	2	133	4	139	6	13	8	27	8	179	3	190	378
05:45 PM	4	2	10	16	3	142	4	149	5	13	5	23	7	144	3	154	342
Total	28	18	28	74	16	547	21	584	24	47	25	96	37	697	9	743	1497
Grand Total	54	48	67	169	33	1051	45	1129	54	93	70	217	63	1377	19	1459	2974
Apprch %	32	28.4	39.6		2.9	93.1	4		24.9	42.9	32.3		4.3	94.4	1.3		
Total %	1.8	1.6	2.3	5.7	1.1	35.3	1.5	38	1.8	3.1	2.4	7.3	2.1	46.3	0.6	49.1	

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	5	6	6	17	2	141	4	147	7	5	9	21	9	172	2	183	368
05:00 PM	6	6	7	19	6	118	7	131	8	13	6	27	11	177	2	190	367
05:15 PM	7	5	5	17	5	154	6	165	5	8	6	19	11	197	1	209	410
05:30 PM	11	5	6	22	2	133	4	139	6	13	8	27	8	179	3	190	378
Total Volume	29	22	24	75	15	546	21	582	26	39	29	94	39	725	8	772	1523
% App. Total	38.7	29.3	32		2.6	93.8	3.6		27.7	41.5	30.9		5.1	93.9	1		
PHF	.659	.917	.857	.852	.625	.886	.750	.882	.813	.750	.806	.870	.886	.920	.667	.923	.929

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	5	6	6	17	2	141	4	147	7	5	9	21	9	172	2	183
+15 mins.	6	6	7	19	6	118	7	131	8	13	6	27	11	177	2	190
+30 mins.	7	5	5	17	5	154	6	165	5	8	6	19	11	197	1	209
+45 mins.	11	5	6	22	2	133	4	139	6	13	8	27	8	179	3	190
Total Volume	29	22	24	75	15	546	21	582	26	39	29	94	39	725	8	772
% App. Total	38.7	29.3	32		2.6	93.8	3.6		27.7	41.5	30.9		5.1	93.9	1	
PHF	.659	.917	.857	.852	.625	.886	.750	.882	.813	.750	.806	.870	.886	.920	.667	.923

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot PM
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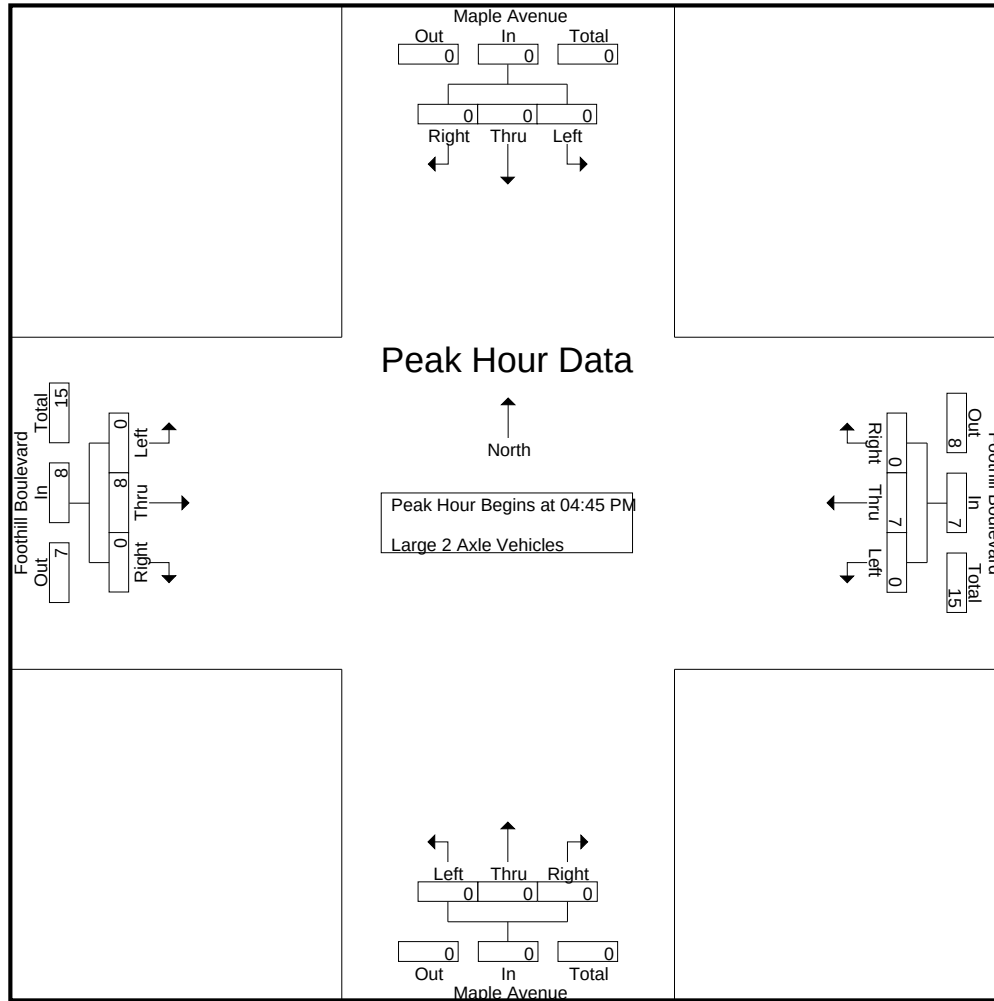
Groups Printed- Large 2 Axle Vehicles

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	5	0	5	6
04:30 PM	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	3	1	4	0	0	0	0	0	9	0	9	13
05:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
05:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
Total	0	0	0	0	0	9	0	9	0	0	0	0	0	9	0	9	18
Grand Total	0	0	0	0	0	12	1	13	0	0	0	0	0	18	0	18	31
Apprch %	0	0	0		0	92.3	7.7		0	0	0		0	100	0		
Total %	0	0	0		0	38.7	3.2	41.9	0	0	0		0	58.1	0	58.1	

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
05:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
Total Volume	0	0	0	0	0	7	0	7	0	0	0	0	0	8	0	8	15
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.583	.000	.583	.000	.000	.000	.000	.000	.667	.000	.667	.625

City of Fontana
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
Total Volume	0	0	0	0	0	7	0	7	0	0	0	0	0	8	0	8
% App. Total	0	0	0	0	0	100	0		0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.000	.583	.000	.583	.000	.000	.000	.000	.000	.667	.000	.667

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot PM
Site Code : 99924434
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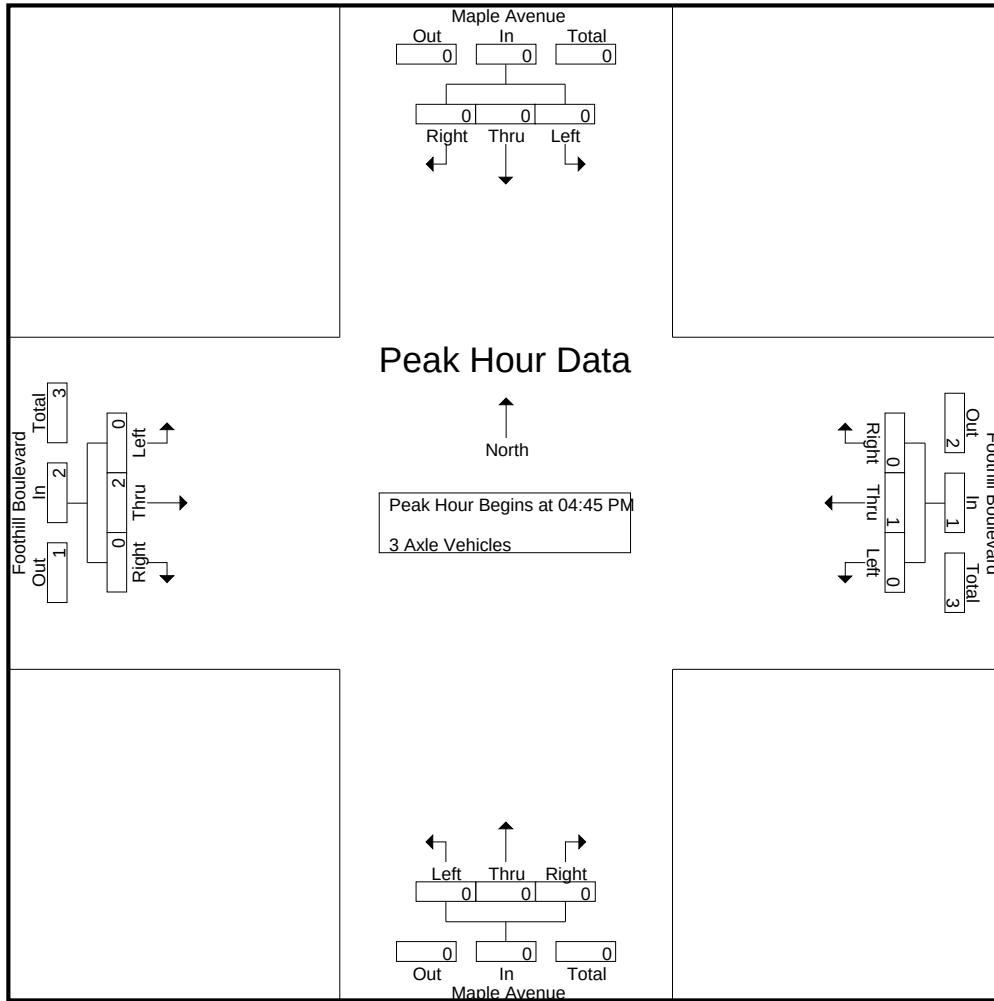
Groups Printed- 3 Axle Vehicles

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:30 PM	1	0	0	1	0	0	0	0	1	0	0	1	0	1	0	1	3
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	1	0	0	1	0	1	0	1	1	0	0	1	0	3	0	3	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	2	1	3	0	0	0	0	0	1	0	1	4
Grand Total	1	0	0	1	0	3	1	4	1	0	0	1	0	4	0	4	10
Apprch %	100	0	0		0	75	25		100	0	0		0	100	0		
Total %	10	0	0	10	0	30	10	40	10	0	0	10	0	40	0	40	

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500	.375

City of Fontana
N/S: Maple Avenue
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File Name : 02_FON_Map_Foot PM
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot PM
Site Code : 99924434
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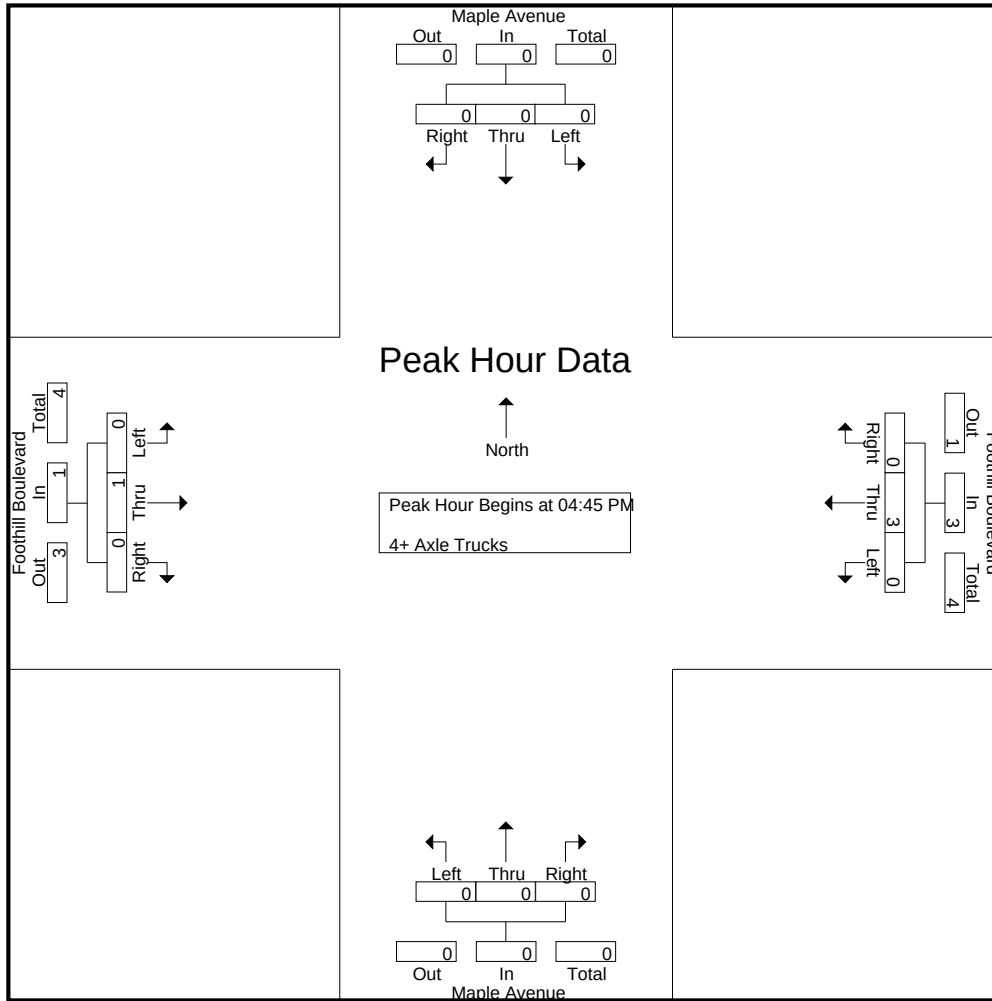
Groups Printed- 4+ Axle Trucks

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Grand Total	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0		
Total %	0	0	0		0	75	0	75	0	0	0		0	25	0	25	

	Maple Avenue Southbound				Foothill Boulevard Westbound				Maple Avenue Northbound				Foothill Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.250	.000	.250	1.00

City of Fontana
N/S: Maple Avenue
E/W: Foothill Boulevard
Weather: Clear

File Name : 02_FON_Map_Foot PM
Site Code : 99924434
Start Date : 5/15/2024
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.250	.000	.250

Location: Fontana
 N/S: Maple Avenue
 E/W: Foothill Boulevard



Date: 5/15/2024
 Day: Wednesday

PEDESTRIANS

		North Leg Maple Avenue	East Leg Foothill Boulevard	South Leg Maple Avenue	West Leg Foothill Boulevard	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	2	0	2
	7:30 AM	0	0	1	1	2
	7:45 AM	0	2	1	0	3
	8:00 AM	0	1	1	0	2
	8:15 AM	0	2	0	1	3
	8:30 AM	0	0	1	1	2
	8:45 AM	0	2	0	0	2
	TOTAL VOLUMES:	0	7	6	3	16

		North Leg Maple Avenue	East Leg Foothill Boulevard	South Leg Maple Avenue	West Leg Foothill Boulevard	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	4:00 PM	0	0	1	0	1
	4:15 PM	1	1	0	0	2
	4:30 PM	0	0	0	0	0
	4:45 PM	0	1	0	0	1
	5:00 PM	0	0	0	0	0
	5:15 PM	0	3	0	0	3
	5:30 PM	0	1	1	0	2
	5:45 PM	0	0	0	0	0
	TOTAL VOLUMES:	1	6	2	0	9

Location: Fontana
 N/S: Maple Avenue
 E/W: Foothill Boulevard



Date: 5/15/2024
 Day: Wednesday

BICYCLES

		Southbound Maple Avenue			Westbound Foothill Boulevard			Northbound Maple Avenue			Eastbound Foothill Boulevard			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	1	0	0	0	0	0	0	0	0	1

		Southbound Maple Avenue			Westbound Foothill Boulevard			Northbound Maple Avenue			Eastbound Foothill Boulevard			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	1	0	0	0	0	0	0	0	0	0	1	0	2
TOTAL VOLUMES:		1	2	0	0	1	0	0	0	0	0	4	0	8

APPENDIX C: VOLUME DEVELOPMENT WORKSHEETS

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour						PM Peak Hour					
	Pass. Veh.	Trucks				Total PCE Volume	Pass. Veh.	Trucks				Total PCE Volume
		2 Axle	3 Axle	4 Axle	PCE			2 Axle	3 Axle	4 Axle	PCE	
2 . Maple Ave & Etiwanda Ave												
NBL	44	0	0	0	0	44	12	1	0	0	2	14
NBT	70	3	0	1	9	79	68	0	0	0	0	68
NBR	9	0	0	0	0	9	8	0	0	0	0	8
SBL	13	0	0	0	0	13	15	0	0	0	0	15
SBT	85	0	0	0	0	85	57	0	0	0	0	57
SBR	15	0	0	0	0	15	11	0	1	0	3	14
EBL	9	1	0	0	2	11	19	0	0	0	0	19
EBT	114	1	0	0	2	116	115	0	0	0	0	115
EBR	82	3	0	0	6	88	13	1	0	0	2	15
WBL	43	0	0	0	0	43	10	0	0	0	0	10
WBT	133	3	0	0	6	139	92	0	1	0	3	95
WBR	16	2	0	0	4	20	13	0	1	0	3	16
North Leg												
Approach	113	0	0	0	0	113	83	0	1	0	3	86
Departure	95	6	0	1	15	110	100	0	1	0	3	103
Total	208	6	0	1	15	223	183	0	2	0	6	189
South Leg												
Approach	123	3	0	1	9	132	88	1	0	0	2	90
Departure	210	3	0	0	6	216	80	1	0	0	2	82
Total	333	6	0	1	15	348	168	2	0	0	4	172
East Leg												
Approach	192	5	0	0	10	202	115	0	2	0	6	121
Departure	136	1	0	0	2	138	138	0	0	0	0	138
Total	328	6	0	0	12	340	253	0	2	0	6	259
West Leg												
Approach	205	5	0	0	10	215	147	1	0	0	2	149
Departure	192	3	0	0	6	198	115	1	2	0	8	123
Total	397	8	0	0	16	413	262	2	2	0	10	272
Total Approaches												
Approach	633	13	0	1	29	662	433	2	3	0	13	446
Departure	633	13	0	1	29	662	433	2	3	0	13	446
Total	1,266	26	0	2	58	1,324	866	4	6	0	26	892

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour						PM Peak Hour					
	Pass. Veh.	Trucks				Total PCE Volume	Pass. Veh.	Trucks				Total PCE Volume
		2 Axle	3 Axle	4 Axle	PCE			2 Axle	3 Axle	4 Axle	PCE	
4 . Maple Ave & Foothill Blvd												
NBL	34	1	0	0	2	36	26	0	0	0	0	26
NBT	72	2	0	0	4	76	39	0	0	0	0	39
NBR	29	0	0	0	0	29	29	0	0	0	0	29
SBL	34	0	0	0	0	34	29	0	0	0	0	29
SBT	35	0	0	0	0	35	22	0	0	0	0	22
SBR	46	1	0	1	5	51	24	0	0	0	0	24
EBL	16	3	0	0	6	22	39	0	0	0	0	39
EBT	421	11	0	3	31	452	725	8	2	1	24	749
EBR	12	0	0	0	0	12	8	0	0	0	0	8
WBL	11	0	0	0	0	11	15	0	0	0	0	15
WBT	535	7	1	2	23	558	546	7	1	3	26	572
WBR	34	0	0	0	0	34	21	0	0	0	0	21
North Leg												
Approach	115	1	0	1	5	120	75	0	0	0	0	75
Departure	122	5	0	0	10	132	99	0	0	0	0	99
Total	237	6	0	1	15	252	174	0	0	0	0	174
South Leg												
Approach	135	3	0	0	6	141	94	0	0	0	0	94
Departure	58	0	0	0	0	58	45	0	0	0	0	45
Total	193	3	0	0	6	199	139	0	0	0	0	139
East Leg												
Approach	580	7	1	2	23	603	582	7	1	3	26	608
Departure	484	11	0	3	31	515	783	8	2	1	24	807
Total	1,064	18	1	5	54	1,118	1,365	15	3	4	50	1,415
West Leg												
Approach	449	14	0	3	37	486	772	8	2	1	24	796
Departure	615	9	1	3	30	645	596	7	1	3	26	622
Total	1,064	23	1	6	67	1,131	1,368	15	3	4	50	1,418
Total Approaches												
Approach	1,279	25	1	6	71	1,350	1,523	15	3	4	50	1,573
Departure	1,279	25	1	6	71	1,350	1,523	15	3	4	50	1,573
Total	2,558	50	2	12	142	2,700	3,046	30	6	8	100	3,146

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
2 . Maple Ave & Etiwanda Ave								
NBL	44	0	44	0.00%	12	1	13	7.69%
NBT	70	4	74	5.41%	68	0	68	0.00%
NBR	9	0	9	0.00%	8	0	8	0.00%
SBL	13	0	13	0.00%	15	0	15	0.00%
SBT	85	0	85	0.00%	57	0	57	0.00%
SBR	15	0	15	0.00%	11	1	12	8.33%
EBL	9	1	10	10.00%	19	0	19	0.00%
EBT	114	1	115	0.87%	115	0	115	0.00%
EBR	82	3	85	3.53%	13	1	14	7.14%
WBL	43	0	43	0.00%	10	0	10	0.00%
WBT	133	3	136	2.21%	92	1	93	1.08%
WBR	16	2	18	11.11%	13	1	14	7.14%
North Leg								
Approach	113	0	113		83	1	84	
Departure	95	7	102		100	1	101	
Total	208	7	215	3.3%	183	2	185	1.1%
South Leg								
Approach	123	4	127		88	1	89	
Departure	210	3	213		80	1	81	
Total	333	7	340	2.1%	168	2	170	1.2%
East Leg								
Approach	192	5	197		115	2	117	
Departure	136	1	137		138	0	138	
Total	328	6	334	1.8%	253	2	255	0.8%
West Leg								
Approach	205	5	210		147	1	148	
Departure	192	3	195		115	3	118	
Total	397	8	405	2.0%	262	4	266	1.5%
Total Approaches								
Approach	633	14	647		433	5	438	
Departure	633	14	647		433	5	438	
Total	1,266	28	1,294	2.2%	866	10	876	1.1%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
4 . Maple Ave & Foothill Blvd								
NBL	34	1	35	2.86%	26	0	26	0.00%
NBT	72	2	74	2.70%	39	0	39	0.00%
NBR	29	0	29	0.00%	29	0	29	0.00%
SBL	34	0	34	0.00%	29	0	29	0.00%
SBT	35	0	35	0.00%	22	0	22	0.00%
SBR	46	2	48	4.17%	24	0	24	0.00%
EBL	16	3	19	15.79%	39	0	39	0.00%
EBT	421	14	435	3.22%	725	11	736	1.49%
EBR	12	0	12	0.00%	8	0	8	0.00%
WBL	11	0	11	0.00%	15	0	15	0.00%
WBT	535	10	545	1.83%	546	11	557	1.97%
WBR	34	0	34	0.00%	21	0	21	0.00%
North Leg								
Approach	115	2	117		75	0	75	
Departure	122	5	127		99	0	99	
Total	237	7	244	2.9%	174	0	174	0.0%
South Leg								
Approach	135	3	138		94	0	94	
Departure	58	0	58		45	0	45	
Total	193	3	196	1.5%	139	0	139	0.0%
East Leg								
Approach	580	10	590		582	11	593	
Departure	484	14	498		783	11	794	
Total	1,064	24	1,088	2.2%	1,365	22	1,387	1.6%
West Leg								
Approach	449	17	466		772	11	783	
Departure	615	13	628		596	11	607	
Total	1,064	30	1,094	2.7%	1,368	22	1,390	1.6%
Total Approaches								
Approach	1,279	32	1,311		1,523	22	1,545	
Departure	1,279	32	1,311		1,523	22	1,545	
Total	2,558	64	2,622	2.4%	3,046	44	3,090	1.4%

Table C-3: Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Without Project Volumes	Project Trips	Existing With Project Volumes	Without Project Volumes	Project Trips	Existing With Project Volumes
2 . Maple Ave & Etiwanda Ave						
NBL	44		44	14		14
NBT	79		79	68		68
NBR	9		9	8		8
SBL	13		13	15		15
SBT	85		85	57		57
SBR	15		15	14		14
EBL	11		11	19		19
EBT	116		116	115		115
EBR	88		88	15		15
WBL	43		43	10		10
WBT	139		139	95		95
WBR	20		20	16		16
North Leg						
Approach	113	0	113	86	0	86
Departure	110	0	110	103	0	103
Total	223	0	223	189	0	189
South Leg						
Approach	132	0	132	90	0	90
Departure	216	0	216	82	0	82
Total	348	0	348	172	0	172
East Leg						
Approach	202	0	202	121	0	121
Departure	138	0	138	138	0	138
Total	340	0	340	259	0	259
West Leg						
Approach	215	0	215	149	0	149
Departure	198	0	198	123	0	123
Total	413	0	413	272	0	272
Total Approaches						
Approach	662	0	662	446	0	446
Departure	662	0	662	446	0	446
Total	1,324	0	1,324	892	0	892

Table C-3: Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Without Project Volumes	Project Trips	Existing With Project Volumes	Without Project Volumes	Project Trips	Existing With Project Volumes
4 . Maple Ave & Foothill Blvd						
NBL	36		36	26		26
NBT	76		76	39		39
NBR	29		29	29		29
SBL	34		34	29		29
SBT	35		35	22		22
SBR	51		51	24		24
EBL	22		22	39		39
EBT	452		452	749		749
EBR	12		12	8		8
WBL	11		11	15		15
WBT	558		558	572		572
WBR	34		34	21		21
North Leg						
Approach	120	0	120	75	0	75
Departure	132	0	132	99	0	99
Total	252	0	252	174	0	174
South Leg						
Approach	141	0	141	94	0	94
Departure	58	0	58	45	0	45
Total	199	0	199	139	0	139
East Leg						
Approach	603	0	603	608	0	608
Departure	515	0	515	807	0	807
Total	1,118	0	1,118	1,415	0	1,415
West Leg						
Approach	486	0	486	796	0	796
Departure	645	0	645	622	0	622
Total	1,131	0	1,131	1,418	0	1,418
Total Approaches						
Approach	1,350	0	1,350	1,573	0	1,573
Departure	1,350	0	1,350	1,573	0	1,573
Total	2,700	0	2,700	3,146	0	3,146

Table C-4: Opening Year (2025) Peak Hour Volume Summary

AM Peak Hour						PM Peak Hour				
Existing Without Project Volumes	Growth	Opening Year (2025) Without Project	Project Trips	Opening Year (2025) With		Existing Without Project Volumes	Growth	Opening Year (2025) Without	Project Trips	Opening Year (2025) With
1 . Dwy 1 & W Foothill Blvd										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	21	21	0	0	0	13	13
EBL	0	0	0	0	0	0	0	0	0	0
EBT	486	5	491	8	499	796	8	804	26	830
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	645	6	651	4	655	622	6	628	3	631
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	0	0	0	21	21	0	0	0	13	13
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	21	21	0	0	0	13	13
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	645	6	651	4	655	622	6	628	3	631
Departure	486	5	491	8	499	796	8	804	26	830
Total	1,131	11	1,142	12	1,154	1,418	14	1,432	29	1,461
West Leg										
Approach	486	5	491	8	499	796	8	804	26	830
Departure	645	6	651	25	676	622	6	628	16	644
Total	1,131	11	1,142	33	1,175	1,418	14	1,432	42	1,474
Total Approaches										
Approach	1,131	11	1,142	33	1,175	1,418	14	1,432	42	1,474
Departure	1,131	11	1,142	33	1,175	1,418	14	1,432	42	1,474
Total	2,262	22	2,284	66	2,350	2,836	28	2,864	84	2,948

Table C-4: Opening Year (2025) Peak Hour Volume Summary

AM Peak Hour						PM Peak Hour				
Existing Without Project Volumes	Growth	Opening Year (2025) Without Project	Project Trips	Opening Year (2025) With	Existing Without Project Volumes	Growth	Opening Year (2025) Without	Project Trips	Opening Year (2025) With	
2 . Maple Ave & Etiwanda Ave										
NBL	44	1	45	2	47	14	0	14	1	15
NBT	79	2	81	12	93	68	2	70	8	78
NBR	9	0	9	2	11	8	0	8	2	10
SBL	13	0	13	0	13	15	0	15	0	15
SBT	85	3	88	4	92	57	2	59	13	72
SBR	15	0	15	0	15	14	0	14	0	14
EBL	11	0	11	0	11	19	0	19	0	19
EBT	116	1	117	0	117	115	1	116	0	116
EBR	88	1	89	1	90	15	0	15	2	17
WBL	43	0	43	1	44	10	0	10	3	13
WBT	139	1	140	0	140	95	1	96	0	96
WBR	20	0	20	0	20	16	0	16	0	16
North Leg										
Approach	113	3	116	4	120	86	2	88	13	101
Departure	110	2	112	12	124	103	2	105	8	113
Total	223	5	228	16	244	189	4	193	21	214
South Leg										
Approach	132	3	135	16	151	90	2	92	11	103
Departure	216	4	220	6	226	82	2	84	18	102
Total	348	7	355	22	377	172	4	176	29	205
East Leg										
Approach	202	1	203	1	204	121	1	122	3	125
Departure	138	1	139	2	141	138	1	139	2	141
Total	340	2	342	3	345	259	2	261	5	266
West Leg										
Approach	215	2	217	1	218	149	1	150	2	152
Departure	198	2	200	2	202	123	1	124	1	125
Total	413	4	417	3	420	272	2	274	3	277
Total Approaches										
Approach	662	9	671	22	693	446	6	452	29	481
Departure	662	9	671	22	693	446	6	452	29	481
Total	1,324	18	1,342	44	1,386	892	12	904	58	962

Table C-4: Opening Year (2025) Peak Hour Volume Summary

AM Peak Hour						PM Peak Hour				
Existing Without Project Volumes	Growth	Opening Year (2025) Without Project	Project Trips	Opening Year (2025) With		Existing Without Project Volumes	Growth	Opening Year (2025) Without	Project Trips	Opening Year (2025) With
3 . Maple Ave & Dwy 2										
NBL	0	0	0	21	21	0	0	0	70	70
NBT	132	4	136	0	136	99	3	102	0	102
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	120	4	124	0	124	75	2	77	0	77
SBR	0	0	0	5	5	0	0	0	17	17
EBL	0	0	0	16	16	0	0	0	10	10
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	45	45	0	0	0	28	28
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	120	4	124	5	129	75	2	77	17	94
Departure	132	4	136	16	152	99	3	102	10	112
Total	252	8	260	21	281	174	5	179	27	206
South Leg										
Approach	132	4	136	21	157	99	3	102	70	172
Departure	120	4	124	45	169	75	2	77	28	105
Total	252	8	260	66	326	174	5	179	98	277
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	0	0	0	61	61	0	0	0	38	38
Departure	0	0	0	26	26	0	0	0	87	87
Total	0	0	0	87	87	0	0	0	125	125
Total Approaches										
Approach	252	8	260	87	347	174	5	179	125	304
Departure	252	8	260	87	347	174	5	179	125	304
Total	504	16	520	174	694	348	10	358	250	608

Table C-4: Opening Year (2025) Peak Hour Volume Summary

AM Peak Hour						PM Peak Hour				
Existing Without Project Volumes	Growth	Opening Year (2025) Without Project	Project Trips	Opening Year (2025) With		Existing Without Project Volumes	Growth	Opening Year (2025) Without	Project Trips	Opening Year (2025) With
4 . Maple Ave & Foothill Blvd										
NBL	36	1	37	0	37	26	1	27	0	27
NBT	76	2	78	5	83	39	1	40	17	57
NBR	29	1	30	0	30	29	1	30	0	30
SBL	34	1	35	25	60	29	1	30	15	45
SBT	35	1	36	16	52	22	1	23	10	33
SBR	51	2	53	4	57	24	1	25	3	28
EBL	22	0	22	8	30	39	0	39	26	65
EBT	452	5	457	0	457	749	7	756	0	756
EBR	12	0	12	0	12	8	0	8	0	8
WBL	11	0	11	0	11	15	0	15	0	15
WBT	558	6	564	0	564	572	6	578	0	578
WBR	34	0	34	8	42	21	0	21	26	47
North Leg										
Approach	120	4	124	45	169	75	3	78	28	106
Departure	132	2	134	21	155	99	1	100	69	169
Total	252	6	258	66	324	174	4	178	97	275
South Leg										
Approach	141	4	145	5	150	94	3	97	17	114
Departure	58	1	59	16	75	45	1	46	10	56
Total	199	5	204	21	225	139	4	143	27	170
East Leg										
Approach	603	6	609	8	617	608	6	614	26	640
Departure	515	7	522	25	547	807	9	816	15	831
Total	1,118	13	1,131	33	1,164	1,415	15	1,430	41	1,471
West Leg										
Approach	486	5	491	8	499	796	7	803	26	829
Departure	645	9	654	4	658	622	8	630	3	633
Total	1,131	14	1,145	12	1,157	1,418	15	1,433	29	1,462
Total Approaches										
Approach	1,350	19	1,369	66	1,435	1,573	19	1,592	97	1,689
Departure	1,350	19	1,369	66	1,435	1,573	19	1,592	97	1,689
Total	2,700	38	2,738	132	2,870	3,146	38	3,184	194	3,378

Table C-5: Future Build-out Year (2045) Peak Hour Volume Summary

AM Peak Hour						PM Peak Hour				
	Existing Without Project Volumes	Growth	(2045) Without Project	Project Trips	(2045) With Project	Existing Without Project Volumes	Growth	(2045) Without Project	Project Trips	(2045) With Project
1 . Dwy 1 & W Foothill Blvd										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	21	21	0	0	0	13	13
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	589	8	597	0	0	963	26	989
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	817	4	821	0	0	773	3	776
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	0	0	0	21	21	0	0	0	13	13
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	21	21	0	0	0	13	13
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	0	0	817	4	821	0	0	773	3	776
Departure	0	0	589	8	597	0	0	963	26	989
Total	0	0	1,406	12	1,418	0	0	1,736	29	1,765
West Leg										
Approach	0	0	589	8	597	0	0	963	26	989
Departure	0	0	817	25	842	0	0	773	16	789
Total	0	0	1,406	33	1,439	0	0	1,736	42	1,778
Total Approaches										
Approach	0	0	1,406	33	1,439	0	0	1,736	42	1,778
Departure	0	0	1,406	33	1,439	0	0	1,736	42	1,778
Total	0	0	2,812	66	2,878	0	0	3,472	84	3,556

Table C-5: Future Build-out Year (2045) Peak Hour Volume Summary

AM Peak Hour						PM Peak Hour				
	Existing Without Project Volumes	Growth	(2045) Without Project	Project Trips	(2045) With Project	Existing Without Project Volumes	Growth	(2045) Without Project	Project Trips	(2045) With Project
2 . Maple Ave & Etiwanda Ave										
NBL	44	28	72	2	74	14	9	23	1	24
NBT	79	50	129	12	141	68	43	111	8	119
NBR	9	6	15	2	17	8	5	13	2	15
SBL	13	8	21	0	21	15	9	24	0	24
SBT	85	54	139	4	143	57	36	93	13	106
SBR	15	9	24	0	24	14	9	23	0	23
EBL	11	2	13	0	13	19	4	23	0	23
EBT	116	24	140	0	140	115	24	139	0	139
EBR	88	18	106	1	107	15	3	18	2	20
WBL	43	9	52	1	53	10	2	12	3	15
WBT	139	29	168	0	168	95	20	115	0	115
WBR	20	4	24	0	24	16	3	19	0	19
North Leg										
Approach	113	71	184	4	188	86	54	140	13	153
Departure	110	56	166	12	178	103	50	153	8	161
Total	223	127	350	16	366	189	104	293	21	314
South Leg										
Approach	132	84	216	16	232	90	57	147	11	158
Departure	216	81	297	6	303	82	41	123	18	141
Total	348	165	513	22	535	172	98	270	29	299
East Leg										
Approach	202	42	244	1	245	121	25	146	3	149
Departure	138	38	176	2	178	138	38	176	2	178
Total	340	80	420	3	423	259	63	322	5	327
West Leg										
Approach	215	44	259	1	260	149	31	180	2	182
Departure	198	66	264	2	266	123	38	161	1	162
Total	413	110	523	3	526	272	69	341	3	344
Total Approaches										
Approach	662	241	903	22	925	446	167	613	29	642
Departure	662	241	903	22	925	446	167	613	29	642
Total	1,324	482	1,806	44	1,850	892	334	1,226	58	1,284

Table C-5: Future Build-out Year (2045) Peak Hour Volume Summary

AM Peak Hour						PM Peak Hour				
	Existing Without Project Volumes	Growth	(2045) Without Project	Project Trips	(2045) With Project	Existing Without Project Volumes	Growth	(2045) Without Project	Project Trips	(2045) With Project
3 . Maple Ave & Dwy 2										
NBL	0	0	0	21	21	0	0	0	70	70
NBT	0	0	192	0	192	0	0	136	0	136
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	0	0	195	0	195	0	0	122	0	122
SBR	0	0	0	5	5	0	0	0	17	17
EBL	0	0	0	16	16	0	0	0	10	10
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	45	45	0	0	0	28	28
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	0	0	195	5	200	0	0	122	17	139
Departure	0	0	192	16	208	0	0	136	10	146
Total	0	0	387	21	408	0	0	258	27	285
South Leg										
Approach	0	0	192	21	213	0	0	136	70	206
Departure	0	0	195	45	240	0	0	122	28	150
Total	0	0	387	66	453	0	0	258	98	356
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	0	0	0	61	61	0	0	0	38	38
Departure	0	0	0	26	26	0	0	0	87	87
Total	0	0	0	87	87	0	0	0	125	125
Total Approaches										
Approach	0	0	387	87	474	0	0	258	125	383
Departure	0	0	387	87	474	0	0	258	125	383
Total	0	0	774	174	948	0	0	516	250	766

Table C-5: Future Build-out Year (2045) Peak Hour Volume Summary

AM Peak Hour						PM Peak Hour				
	Existing Without Project Volumes	Growth	(2045) Without Project	Project Trips	(2045) With Project	Existing Without Project Volumes	Growth	(2045) Without Project	Project Trips	(2045) With Project
4 . Maple Ave & Foothill Blvd										
NBL	36	23	59	0	59	26	16	42	0	42
NBT	76	48	124	5	129	39	25	64	17	81
NBR	29	18	47	0	47	29	18	47	0	47
SBL	34	21	55	25	80	29	18	47	15	62
SBT	35	22	57	16	73	22	14	36	10	46
SBR	51	32	83	4	87	24	15	39	3	42
EBL	22	5	27	8	35	39	8	47	26	73
EBT	452	95	547	0	547	749	157	906	0	906
EBR	12	3	15	0	15	8	2	10	0	10
WBL	11	2	13	0	13	15	3	18	0	18
WBT	558	117	675	0	675	572	120	692	0	692
WBR	34	7	41	8	49	21	4	25	26	51
North Leg										
Approach	120	75	195	45	240	75	47	122	28	150
Departure	132	60	192	21	213	99	37	136	69	205
Total	252	135	387	66	453	174	84	258	97	355
South Leg										
Approach	141	89	230	5	235	94	59	153	17	170
Departure	58	27	85	16	101	45	19	64	10	74
Total	199	116	315	21	336	139	78	217	27	244
East Leg										
Approach	603	126	729	8	737	608	127	735	26	761
Departure	515	134	649	25	674	807	193	1,000	15	1,015
Total	1,118	260	1,378	33	1,411	1,415	320	1,735	41	1,776
West Leg										
Approach	486	103	589	8	597	796	167	963	26	989
Departure	645	172	817	4	821	622	151	773	3	776
Total	1,131	275	1,406	12	1,418	1,418	318	1,736	29	1,765
Total Approaches										
Approach	1,350	393	1,743	66	1,809	1,573	400	1,973	97	2,070
Departure	1,350	393	1,743	66	1,809	1,573	400	1,973	97	2,070
Total	2,700	786	3,486	132	3,618	3,146	800	3,946	194	4,140

APPENDIX D: LEVEL OF SERVICE WORKSHEETS

HCM 7th AWSC
Existing Conditions - AM Peak Hour

2: Maple Ave & Etiwanda Ave

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	116	88	43	139	20	44	79	9	13	85	15
Future Vol, veh/h	11	116	88	43	139	20	44	79	9	13	85	15
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	118	90	44	142	20	45	81	9	13	87	15
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay, s/veh	8.9	9.9	9.4	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	33%	9%	0%	21%	12%
Vol Thru, %	60%	91%	0%	69%	75%
Vol Right, %	7%	0%	100%	10%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	132	127	88	202	113
LT Vol	44	11	0	43	13
Through Vol	79	116	0	139	85
RT Vol	9	0	88	20	15
Lane Flow Rate	135	130	90	206	115
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.192	0.195	0.116	0.282	0.163
Departure Headway (Hd)	5.128	5.414	4.664	4.919	5.077
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	694	658	762	726	700
Service Time	3.202	3.183	2.433	2.988	3.153
HCM Lane V/C Ratio	0.195	0.198	0.118	0.284	0.164
HCM Control Delay, s/veh	9.4	9.5	8.1	9.9	9.2
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.7	0.7	0.4	1.2	0.6

HCM 7th Signalized Intersection Summary Existing Conditions - AM Peak Hour

4: Maple Ave & Foothill Blvd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	452	12	11	558	34	36	76	29	34	35	51
Future Volume (veh/h)	22	452	12	11	558	34	36	76	29	34	35	51
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	532	14	13	656	40	42	89	34	40	41	60
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	1415	37	100	1281	78	653	604	231	634	322	471
Arrive On Green	0.08	0.40	0.40	0.06	0.38	0.38	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3537	93	1781	3403	207	1294	1289	493	1268	686	1004
Grp Volume(v), veh/h	26	267	279	13	342	354	42	0	123	40	0	101
Grp Sat Flow(s),veh/h/ln	1781	1777	1854	1781	1777	1833	1294	0	1782	1268	0	1690
Q Serve(g_s), s	1.1	8.5	8.5	0.6	11.9	11.9	1.5	0.0	3.2	1.5	0.0	2.7
Cycle Q Clear(g_c), s	1.1	8.5	8.5	0.6	11.9	11.9	4.2	0.0	3.2	4.6	0.0	2.7
Prop In Lane	1.00		0.05	1.00		0.11	1.00		0.28	1.00		0.59
Lane Grp Cap(c), veh/h	142	711	741	100	669	690	653	0	835	634	0	792
V/C Ratio(X)	0.18	0.38	0.38	0.13	0.51	0.51	0.06	0.00	0.15	0.06	0.00	0.13
Avail Cap(c_a), veh/h	267	711	741	267	669	690	653	0	835	634	0	792
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.4	17.0	17.0	35.9	19.3	19.3	13.2	0.0	12.1	13.4	0.0	12.0
Incr Delay (d2), s/veh	0.6	1.5	1.5	0.6	2.8	2.7	0.2	0.0	0.4	0.2	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.6	3.7	0.3	5.2	5.3	0.5	0.0	1.3	0.4	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.0	18.5	18.4	36.5	22.1	22.0	13.4	0.0	12.5	13.6	0.0	12.3
LnGrp LOS	C	B	B	D	C	C	B		B	B		B
Approach Vol, veh/h	572			709			165			141		
Approach Delay, s/veh	19.2			22.3			12.7			12.7		
Approach LOS	B			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	34.0		39.5	8.4	32.1		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.6	10.5		6.6	3.1	13.9		6.2				
Green Ext Time (p_c), s	0.0	2.6		0.7	0.0	2.8		0.8				
Intersection Summary												
HCM 7th Control Delay, s/veh				19.3								
HCM 7th LOS				B								

HCM 7th AWSC
Existing Conditions - PM Peak Hour

2: Maple Ave & Etiwanda Ave

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	115	15	10	95	16	14	68	8	15	57	14
Future Vol, veh/h	19	115	15	10	95	16	14	68	8	15	57	14
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	124	16	11	102	17	15	73	9	16	61	15
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay, s/veh	9.1	8.6	8.5	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	16%	14%	0%	8%	17%
Vol Thru, %	76%	86%	0%	79%	66%
Vol Right, %	9%	0%	100%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	134	15	121	86
LT Vol	14	19	0	10	15
Through Vol	68	115	0	95	57
RT Vol	8	0	15	16	14
Lane Flow Rate	97	144	16	130	92
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.127	0.207	0.02	0.167	0.121
Departure Headway (Hd)	4.734	5.171	4.396	4.626	4.699
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	757	694	813	774	762
Service Time	2.769	2.904	2.129	2.661	2.734
HCM Lane V/C Ratio	0.128	0.207	0.02	0.168	0.121
HCM Control Delay, s/veh	8.5	9.3	7.2	8.6	8.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	0.8	0.1	0.6	0.4

HCM 7th Signalized Intersection Summary Existing Conditions - PM Peak Hour

4: Maple Ave & Foothill Blvd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	749	8	15	572	21	26	39	29	29	22	24
Future Volume (veh/h)	39	749	8	15	572	21	26	39	29	29	22	24
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	805	9	16	615	23	28	42	31	31	24	26
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	1418	16	111	1241	46	703	469	346	681	385	417
Arrive On Green	0.10	0.39	0.39	0.06	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3600	40	1781	3493	131	1355	1000	738	1327	821	889
Grp Volume(v), veh/h	42	397	417	16	313	325	28	0	73	31	0	50
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1847	1355	0	1738	1327	0	1710
Q Serve(g_s), s	1.7	14.0	14.0	0.7	11.0	11.0	0.9	0.0	1.9	1.1	0.0	1.3
Cycle Q Clear(g_c), s	1.7	14.0	14.0	0.7	11.0	11.0	2.2	0.0	1.9	2.9	0.0	1.3
Prop In Lane	1.00		0.02	1.00		0.07	1.00		0.42	1.00		0.52
Lane Grp Cap(c), veh/h	180	700	734	111	631	656	703	0	814	681	0	802
V/C Ratio(X)	0.23	0.57	0.57	0.14	0.50	0.50	0.04	0.00	0.09	0.05	0.00	0.06
Avail Cap(c_a), veh/h	267	700	734	267	631	656	703	0	814	681	0	802
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.1	18.9	18.9	35.5	20.2	20.2	12.2	0.0	11.8	12.6	0.0	11.6
Incr Delay (d2), s/veh	0.7	3.3	3.2	0.6	2.8	2.7	0.1	0.0	0.2	0.1	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	0.8	6.1	6.3	0.3	4.8	5.0	0.3	0.0	0.7	0.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.8	22.3	22.1	36.1	22.9	22.8	12.3	0.0	12.0	12.7	0.0	11.8
LnGrp LOS	C	C	C	D	C	C	B		B	B		B
Approach Vol, veh/h	856			654			101			81		
Approach Delay, s/veh	22.7			23.2			12.1			12.1		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	33.5		39.5	10.1	30.4		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.7	16.0		4.9	3.7	13.0		4.2				
Green Ext Time (p_c), s	0.0	2.7		0.3	0.0	2.7		0.5				
Intersection Summary												
HCM 7th Control Delay, s/veh	21.8											
HCM 7th LOS	C											

Opening Year (2025) Without Project Conditions - AM Peak Hour

Intersection												
Intersection Delay, s/veh	9.4											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	11	117	89	43	140	20	45	81	9	13	88	15
Future Vol, veh/h	11	117	89	43	140	20	45	81	9	13	88	15
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	119	91	44	143	20	46	83	9	13	90	15
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			2			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			2			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			2		
HCM Control Delay, s/veh	8.9			10			9.5			9.2		
HCM LOS	A			A			A			A		
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1							
Vol Left, %	33%	9%	0%	21%	11%							
Vol Thru, %	60%	91%	0%	69%	76%							
Vol Right, %	7%	0%	100%	10%	13%							
Sign Control	Stop	Stop	Stop	Stop	Stop							
Traffic Vol by Lane	135	128	89	203	116							
LT Vol	45	11	0	43	13							
Through Vol	81	117	0	140	88							
RT Vol	9	0	89	20	15							
Lane Flow Rate	138	131	91	207	118							
Geometry Grp	2	5	5	4a	2							
Degree of Util (X)	0.197	0.197	0.118	0.284	0.167							
Departure Headway (Hd)	5.145	5.433	4.684	4.94	5.094							
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes							
Cap	692	656	759	721	698							
Service Time	3.218	3.203	2.453	3.01	3.171							
HCM Lane V/C Ratio	0.199	0.2	0.12	0.287	0.169							
HCM Control Delay, s/veh	9.5	9.5	8.1	10	9.2							
HCM Lane LOS	A	A	A	A	A							
HCM 95th-tile Q	0.7	0.7	0.4	1.2	0.6							

HCM 7th Signalized Intersection Summary

4: Maple Ave & Foothill Blvd

Opening Year (2025) Without Project Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	457	12	11	564	34	37	78	30	35	36	53
Future Volume (veh/h)	22	457	12	11	564	34	37	78	30	35	36	53
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	538	14	13	664	40	44	92	35	41	42	62
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	1415	37	100	1282	77	650	605	230	631	320	472
Arrive On Green	0.08	0.40	0.40	0.06	0.38	0.38	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3539	92	1781	3405	205	1290	1291	491	1264	682	1007
Grp Volume(v), veh/h	26	270	282	13	346	358	44	0	127	41	0	104
Grp Sat Flow(s),veh/h/ln	1781	1777	1854	1781	1777	1833	1290	0	1782	1264	0	1689
Q Serve(g_s), s	1.1	8.6	8.6	0.6	12.1	12.1	1.6	0.0	3.3	1.5	0.0	2.8
Cycle Q Clear(g_c), s	1.1	8.6	8.6	0.6	12.1	12.1	4.4	0.0	3.3	4.8	0.0	2.8
Prop In Lane	1.00		0.05	1.00		0.11	1.00		0.28	1.00		0.60
Lane Grp Cap(c), veh/h	142	711	741	100	669	690	650	0	835	631	0	792
V/C Ratio(X)	0.18	0.38	0.38	0.13	0.52	0.52	0.07	0.00	0.15	0.06	0.00	0.13
Avail Cap(c_a), veh/h	267	711	741	267	669	690	650	0	835	631	0	792
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.4	17.0	17.0	35.9	19.3	19.3	13.3	0.0	12.2	13.5	0.0	12.0
Incr Delay (d2), s/veh	0.6	1.5	1.5	0.6	2.9	2.8	0.2	0.0	0.4	0.2	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.6	3.8	0.3	5.2	5.4	0.5	0.0	1.3	0.5	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.0	18.5	18.5	36.5	22.2	22.1	13.5	0.0	12.5	13.7	0.0	12.4
LnGrp LOS	C	B	B	D	C	C	B		B	B		B
Approach Vol, veh/h	578			717			171			145		
Approach Delay, s/veh	19.2			22.4			12.8			12.8		
Approach LOS	B			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	34.0		39.5	8.4	32.1		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.6	10.6		6.8	3.1	14.1		6.4				
Green Ext Time (p_c), s	0.0	2.6		0.7	0.0	2.8		0.9				
Intersection Summary												
HCM 7th Control Delay, s/veh	19.4											
HCM 7th LOS	B											

Opening Year (2025) Without Project Conditions - PM Peak Hour

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	116	15	10	96	16	14	70	8	15	59	14
Future Vol, veh/h	19	116	15	10	96	16	14	70	8	15	59	14
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	125	16	11	103	17	15	75	9	16	63	15
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay, s/veh	9.1	8.6	8.5	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	15%	14%	0%	8%	17%
Vol Thru, %	76%	86%	0%	79%	67%
Vol Right, %	9%	0%	100%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	92	135	15	122	88
LT Vol	14	19	0	10	15
Through Vol	70	116	0	96	59
RT Vol	8	0	15	16	14
Lane Flow Rate	99	145	16	131	95
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.13	0.209	0.02	0.169	0.124
Departure Headway (Hd)	4.745	5.184	4.409	4.64	4.711
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	755	692	811	771	760
Service Time	2.78	2.917	2.142	2.676	2.746
HCM Lane V/C Ratio	0.131	0.21	0.02	0.17	0.125
HCM Control Delay, s/veh	8.5	9.3	7.2	8.6	8.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	0.8	0.1	0.6	0.4

HCM 7th Signalized Intersection Summary

4: Maple Ave & Foothill Blvd

Opening Year (2025) Without Project Conditions - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	756	8	15	578	21	27	40	30	30	23	25
Future Volume (veh/h)	39	756	8	15	578	21	27	40	30	30	23	25
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	813	9	16	622	23	29	43	32	32	25	27
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	1418	16	111	1242	46	701	467	347	679	385	416
Arrive On Green	0.10	0.39	0.39	0.06	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3600	40	1781	3495	129	1352	996	741	1325	822	888
Grp Volume(v), veh/h	42	401	421	16	316	329	29	0	75	32	0	52
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1847	1352	0	1737	1325	0	1710
Q Serve(g_s), s	1.7	14.1	14.1	0.7	11.2	11.2	1.0	0.0	1.9	1.1	0.0	1.3
Cycle Q Clear(g_c), s	1.7	14.1	14.1	0.7	11.2	11.2	2.3	0.0	1.9	3.0	0.0	1.3
Prop In Lane	1.00		0.02	1.00		0.07	1.00		0.43	1.00		0.52
Lane Grp Cap(c), veh/h	180	700	734	111	631	656	701	0	814	679	0	802
V/C Ratio(X)	0.23	0.57	0.57	0.14	0.50	0.50	0.04	0.00	0.09	0.05	0.00	0.06
Avail Cap(c_a), veh/h	267	700	734	267	631	656	701	0	814	679	0	802
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.1	19.0	19.0	35.5	20.2	20.2	12.3	0.0	11.8	12.6	0.0	11.6
Incr Delay (d2), s/veh	0.7	3.4	3.2	0.6	2.8	2.7	0.1	0.0	0.2	0.1	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.1	6.4	0.3	4.9	5.1	0.3	0.0	0.7	0.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.8	22.4	22.2	36.1	23.0	22.9	12.4	0.0	12.0	12.8	0.0	11.8
LnGrp LOS	C	C	C	D	C	C	B		B	B		B
Approach Vol, veh/h	864			661			104			84		
Approach Delay, s/veh	22.9			23.3			12.1			12.2		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	33.5		39.5	10.1	30.4		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.7	16.1		5.0	3.7	13.2		4.3				
Green Ext Time (p_c), s	0.0	2.7		0.3	0.0	2.7		0.5				
Intersection Summary												
HCM 7th Control Delay, s/veh				21.9								
HCM 7th LOS				C								

HCM 7th TWSC
Opening Year (2025) With Project Conditions - AM Peak Hour

1: Foothill Blvd & Dwy 1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	499	655	0	0	21
Future Vol, veh/h	0	499	655	0	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	542	712	0	0	23
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	356
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	*917
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		0
Mov Cap-1 Maneuver	-	-	-	-	-	*917
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		9.03		
HCM LOS				A		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	917		
HCM Lane V/C Ratio	-	-	-	0.025		
HCM Ctrl Dly (s/v)	-	-	-	9		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s				
+: Computation Not Defined		*: All major volume in platoon				

HCM 7th AWSC
Opening Year (2025) With Project Conditions - AM Peak Hour

2: Maple Ave & Etiwanda Ave

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	11	117	90	44	140	20	47	93	11	13	92	15
Future Vol, veh/h	11	117	90	44	140	20	47	93	11	13	92	15
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	119	92	45	143	20	48	95	11	13	94	15
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay, s/veh	9.1	10.1	9.7	9.3
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	31%	9%	0%	22%	11%
Vol Thru, %	62%	91%	0%	69%	77%
Vol Right, %	7%	0%	100%	10%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	151	128	90	204	120
LT Vol	47	11	0	44	13
Through Vol	93	117	0	140	92
RT Vol	11	0	90	20	15
Lane Flow Rate	154	131	92	208	122
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.221	0.199	0.121	0.289	0.175
Departure Headway (Hd)	5.154	5.494	4.744	5.001	5.131
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	690	648	748	712	692
Service Time	3.236	3.273	2.523	3.08	3.218
HCM Lane V/C Ratio	0.223	0.202	0.123	0.292	0.176
HCM Control Delay, s/veh	9.7	9.7	8.2	10.1	9.3
HCM Lane LOS	A	A	A	B	A
HCM 95th-tile Q	0.8	0.7	0.4	1.2	0.6

HCM 7th TWSC
Opening Year (2025) With Project Conditions - AM Peak Hour

3: Maple Ave & Dwy 2

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	45	21	136	124	5
Future Vol, veh/h	16	45	21	136	124	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	49	23	148	135	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	331	137	140	0	-	0
Stage 1	137	-	-	-	-	-
Stage 2	193	-	-	-	-	-
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	664	911	1443	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	652	911	1443	-	-	-
Mov Cap-2 Maneuver	652	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.74	1.01		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	241	-	825	-	-	
HCM Lane V/C Ratio	0.016	-	0.08	-	-	
HCM Ctrl Dly (s/v)	7.5	0	9.7	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

HCM 7th Signalized Intersection Summary

4: Maple Ave & Foothill Blvd

Opening Year (2025) With Project Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	457	12	11	564	42	37	83	30	60	52	57
Future Volume (veh/h)	30	457	12	11	564	42	37	83	30	60	52	57
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	538	14	13	664	49	44	98	35	71	61	67
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1415	37	100	1220	90	627	617	220	625	382	419
Arrive On Green	0.09	0.40	0.40	0.06	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3539	92	1781	3355	247	1262	1316	470	1257	815	895
Grp Volume(v), veh/h	35	270	282	13	351	362	44	0	133	71	0	128
Grp Sat Flow(s),veh/h/ln	1781	1777	1854	1781	1777	1826	1262	0	1786	1257	0	1709
Q Serve(g_s), s	1.5	8.6	8.6	0.6	12.5	12.6	1.7	0.0	3.4	2.7	0.0	3.4
Cycle Q Clear(g_c), s	1.5	8.6	8.6	0.6	12.5	12.6	5.1	0.0	3.4	6.2	0.0	3.4
Prop In Lane	1.00		0.05	1.00		0.14	1.00		0.26	1.00		0.52
Lane Grp Cap(c), veh/h	165	711	741	100	646	664	627	0	837	625	0	801
V/C Ratio(X)	0.21	0.38	0.38	0.13	0.54	0.54	0.07	0.00	0.16	0.11	0.00	0.16
Avail Cap(c_a), veh/h	267	711	741	267	646	664	627	0	837	625	0	801
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.6	17.0	17.0	35.9	20.2	20.2	13.7	0.0	12.2	14.0	0.0	12.2
Incr Delay (d2), s/veh	0.6	1.5	1.5	0.6	3.3	3.2	0.2	0.0	0.4	0.4	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.6	3.8	0.3	5.5	5.7	0.5	0.0	1.4	0.8	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.2	18.5	18.5	36.5	23.5	23.4	13.9	0.0	12.6	14.3	0.0	12.6
LnGrp LOS	C	B	B	D	C	C	B		B	B		B
Approach Vol, veh/h	587			726			177			199		
Approach Delay, s/veh	19.4			23.7			12.9			13.2		
Approach LOS	B			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	34.0		39.5	9.4	31.1		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.6	10.6		8.2	3.5	14.6		7.1				
Green Ext Time (p_c), s	0.0	2.6		1.0	0.0	2.7		0.9				
Intersection Summary												
HCM 7th Control Delay, s/veh	19.8											
HCM 7th LOS	B											

HCM 7th TWSC
Opening Year (2025) With Project Conditions - PM Peak Hour

1: Foothill Blvd & Dwy 1

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↗
Traffic Vol, veh/h	0	830	631	0	0	13
Future Vol, veh/h	0	830	631	0	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	902	686	0	0	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	343
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	653
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	653
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		10.63		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	653		
HCM Lane V/C Ratio	-	-	-	0.022		
HCM Ctrl Dly (s/v)	-	-	-	10.6		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.1		

HCM 7th AWSC
Opening Year (2025) With Project Conditions - PM Peak Hour

2: Maple Ave & Etiwanda Ave

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔			↔			↔	
Traffic Vol, veh/h	19	116	17	13	96	16	15	78	10	15	72	14
Future Vol, veh/h	19	116	17	13	96	16	15	78	10	15	72	14
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	125	18	14	103	17	16	84	11	16	77	15
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay, s/veh	9.2	8.8	8.6	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	15%	14%	0%	10%	15%
Vol Thru, %	76%	86%	0%	77%	71%
Vol Right, %	10%	0%	100%	13%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	135	17	125	101
LT Vol	15	19	0	13	15
Through Vol	78	116	0	96	72
RT Vol	10	0	17	16	14
Lane Flow Rate	111	145	18	134	109
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.147	0.212	0.023	0.176	0.143
Departure Headway (Hd)	4.776	5.255	4.479	4.717	4.754
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	749	682	797	758	753
Service Time	2.816	2.995	2.219	2.759	2.795
HCM Lane V/C Ratio	0.148	0.213	0.023	0.177	0.145
HCM Control Delay, s/veh	8.6	9.4	7.3	8.8	8.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.5	0.8	0.1	0.6	0.5

HCM 7th TWSC
Opening Year (2025) With Project Conditions - PM Peak Hour

3: Maple Ave & Dwy 2

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	28	70	102	77	17
Future Vol, veh/h	10	28	70	102	77	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	30	76	111	84	18

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	356	93	102	0	-	0
Stage 1	93	-	-	-	-	-
Stage 2	263	-	-	-	-	-
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	642	964	1490	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	607	964	1490	-	-	-
Mov Cap-2 Maneuver	607	-	-	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	781	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.54	3.07	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	733	-	835	-	-
HCM Lane V/C Ratio	0.051	-	0.049	-	-
HCM Ctrl Dly (s/v)	7.5	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

HCM 7th Signalized Intersection Summary
Opening Year (2025) With Project Conditions - PM Peak Hour

4: Maple Ave & Foothill Blvd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	756	8	15	578	47	27	57	30	45	33	28
Future Volume (veh/h)	65	756	8	15	578	47	27	57	30	45	33	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	813	9	16	622	51	29	61	32	48	35	30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	1418	16	111	1106	91	689	542	284	662	436	374
Arrive On Green	0.12	0.39	0.39	0.06	0.33	0.33	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3600	40	1781	3326	272	1337	1155	606	1303	930	797
Grp Volume(v), veh/h	70	401	421	16	332	341	29	0	93	48	0	65
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1821	1337	0	1761	1303	0	1727
Q Serve(g_s), s	2.9	14.1	14.1	0.7	12.3	12.3	1.0	0.0	2.4	1.7	0.0	1.7
Cycle Q Clear(g_c), s	2.9	14.1	14.1	0.7	12.3	12.3	2.6	0.0	2.4	4.1	0.0	1.7
Prop In Lane	1.00		0.02	1.00		0.15	1.00		0.34	1.00		0.46
Lane Grp Cap(c), veh/h	220	700	734	111	591	606	689	0	826	662	0	809
V/C Ratio(X)	0.32	0.57	0.57	0.14	0.56	0.56	0.04	0.00	0.11	0.07	0.00	0.08
Avail Cap(c_a), veh/h	267	700	734	267	591	606	689	0	826	662	0	809
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.0	19.0	19.0	35.5	21.9	21.9	12.5	0.0	11.9	13.1	0.0	11.7
Incr Delay (d2), s/veh	0.8	3.4	3.2	0.6	3.8	3.8	0.1	0.0	0.3	0.2	0.0	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	1.3	6.1	6.4	0.3	5.5	5.6	0.3	0.0	0.9	0.5	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.8	22.4	22.2	36.1	25.7	25.7	12.6	0.0	12.2	13.3	0.0	11.9
LnGrp LOS	C	C	C	D	C	C	B		B	B		B
Approach Vol, veh/h	892			689			122			113		
Approach Delay, s/veh	23.1			25.9			12.3			12.5		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	33.5		39.5	11.9	28.6		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.7	16.1		6.1	4.9	14.3		4.6				
Green Ext Time (p_c), s	0.0	2.7		0.5	0.0	2.6		0.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	22.8											
HCM 7th LOS	C											

Future Build-out Year (2045) Without Project Conditions - AM Peak Hour

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔			↔			↔	
Traffic Vol, veh/h	13	140	106	52	168	24	72	129	15	21	139	24
Future Vol, veh/h	13	140	106	52	168	24	72	129	15	21	139	24
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	143	108	53	171	24	73	132	15	21	142	24
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay, s/veh	10.3	12.3	11.8	11.2
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	33%	8%	0%	21%	11%
Vol Thru, %	60%	92%	0%	69%	76%
Vol Right, %	7%	0%	100%	10%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	216	153	106	244	184
LT Vol	72	13	0	52	21
Through Vol	129	140	0	168	139
RT Vol	15	0	106	24	24
Lane Flow Rate	220	156	108	249	188
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.349	0.266	0.161	0.39	0.297
Departure Headway (Hd)	5.699	6.128	5.374	5.634	5.686
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	628	585	665	637	629
Service Time	3.756	3.881	3.127	3.687	3.743
HCM Lane V/C Ratio	0.35	0.267	0.162	0.391	0.299
HCM Control Delay, s/veh	11.8	11.1	9.2	12.3	11.2
HCM Lane LOS	B	B	A	B	B
HCM 95th-tile Q	1.6	1.1	0.6	1.8	1.2

HCM 7th Signalized Intersection Summary

4: Maple Ave & Foothill Blvd

Future Build-out Year (2045) Without Project Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	547	15	13	675	41	59	124	47	55	57	83
Future Volume (veh/h)	27	547	15	13	675	41	59	124	47	55	57	83
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	576	16	14	711	43	62	131	49	58	60	87
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	148	1405	39	104	1271	77	609	608	228	583	323	469
Arrive On Green	0.08	0.40	0.40	0.06	0.37	0.37	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3532	98	1781	3404	206	1241	1298	485	1204	690	1000
Grp Volume(v), veh/h	28	290	302	14	371	383	62	0	180	58	0	147
Grp Sat Flow(s),veh/h/ln	1781	1777	1853	1781	1777	1833	1241	0	1783	1204	0	1690
Q Serve(g_s), s	1.2	9.4	9.4	0.6	13.2	13.2	2.4	0.0	4.8	2.4	0.0	4.0
Cycle Q Clear(g_c), s	1.2	9.4	9.4	0.6	13.2	13.2	6.5	0.0	4.8	7.2	0.0	4.0
Prop In Lane	1.00		0.05	1.00		0.11	1.00		0.27	1.00		0.59
Lane Grp Cap(c), veh/h	148	707	737	104	663	684	609	0	836	583	0	792
V/C Ratio(X)	0.19	0.41	0.41	0.13	0.56	0.56	0.10	0.00	0.22	0.10	0.00	0.19
Avail Cap(c_a), veh/h	267	707	737	267	663	684	609	0	836	583	0	792
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.2	17.3	17.3	35.7	19.9	19.9	14.3	0.0	12.6	14.7	0.0	12.4
Incr Delay (d2), s/veh	0.6	1.8	1.7	0.6	3.4	3.3	0.3	0.0	0.6	0.3	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.0	4.1	0.3	5.8	6.0	0.7	0.0	1.9	0.7	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.8	19.1	19.0	36.3	23.2	23.1	14.6	0.0	13.1	15.0	0.0	12.9
LnGrp LOS	C	B	B	D	C	C	B		B	B		B
Approach Vol, veh/h	620			768			242			205		
Approach Delay, s/veh	19.8			23.4			13.5			13.5		
Approach LOS	B			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	33.8		39.5	8.6	31.9		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.6	11.4		9.2	3.2	15.2		8.5				
Green Ext Time (p_c), s	0.0	2.7		1.1	0.0	2.7		1.3				
Intersection Summary												
HCM 7th Control Delay, s/veh				19.8								
HCM 7th LOS				B								

Future Build-out Year (2045) Without Project Conditions - PM Peak Hour

Intersection

Intersection Delay, s/veh 9.5

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	139	18	12	115	19	23	111	13	24	93	23
Future Vol, veh/h	23	139	18	12	115	19	23	111	13	24	93	23
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	24	146	19	13	121	20	24	117	14	25	98	24
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay, s/veh	9.9	9.4	9.4	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	16%	14%	0%	8%	17%
Vol Thru, %	76%	86%	0%	79%	66%
Vol Right, %	9%	0%	100%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	147	162	18	146	140
LT Vol	23	23	0	12	24
Through Vol	111	139	0	115	93
RT Vol	13	0	18	19	23
Lane Flow Rate	155	171	19	154	147
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.214	0.261	0.025	0.213	0.203
Departure Headway (Hd)	4.98	5.504	4.726	4.979	4.949
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	715	648	750	715	719
Service Time	3.053	3.279	2.501	3.059	3.022
HCM Lane V/C Ratio	0.217	0.264	0.025	0.215	0.204
HCM Control Delay, s/veh	9.4	10.2	7.6	9.4	9.3
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.8	1	0.1	0.8	0.8

HCM 7th Signalized Intersection Summary

4: Maple Ave & Foothill Blvd

Future Build-out Year (2045) Without Project Conditions - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	906	10	18	692	25	42	64	47	47	36	39
Future Volume (veh/h)	47	906	10	18	692	25	42	64	47	47	36	39
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	954	11	19	728	26	44	67	49	49	38	41
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	192	1397	16	121	1219	44	675	471	344	640	386	416
Arrive On Green	0.11	0.39	0.39	0.07	0.35	0.35	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3598	41	1781	3500	125	1320	1004	734	1276	823	888
Grp Volume(v), veh/h	49	471	494	19	369	385	44	0	116	49	0	79
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1848	1320	0	1738	1276	0	1711
Q Serve(g_s), s	2.0	17.7	17.7	0.8	13.7	13.7	1.5	0.0	3.0	1.8	0.0	2.1
Cycle Q Clear(g_c), s	2.0	17.7	17.7	0.8	13.7	13.7	3.6	0.0	3.0	4.9	0.0	2.1
Prop In Lane	1.00		0.02	1.00		0.07	1.00		0.42	1.00		0.52
Lane Grp Cap(c), veh/h	192	690	723	121	619	644	675	0	815	640	0	802
V/C Ratio(X)	0.25	0.68	0.68	0.16	0.60	0.60	0.07	0.00	0.14	0.08	0.00	0.10
Avail Cap(c_a), veh/h	267	690	723	267	619	644	675	0	815	640	0	802
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	20.4	20.4	35.1	21.4	21.5	12.8	0.0	12.1	13.5	0.0	11.8
Incr Delay (d2), s/veh	0.7	5.4	5.2	0.6	4.2	4.1	0.2	0.0	0.4	0.2	0.0	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	0.9	7.9	8.2	0.4	6.1	6.4	0.5	0.0	1.2	0.5	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.4	25.8	25.5	35.7	25.7	25.5	13.0	0.0	12.5	13.7	0.0	12.1
LnGrp LOS	C	C	C	D	C	C	B		B	B		B
Approach Vol, veh/h	1014			773			160			128		
Approach Delay, s/veh	26.0			25.8			12.6			12.7		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	33.1		39.5	10.6	29.9		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.8	19.7		6.9	4.0	15.7		5.6				
Green Ext Time (p_c), s	0.0	1.6		0.6	0.0	2.6		0.8				
Intersection Summary												
HCM 7th Control Delay, s/veh	24.1											
HCM 7th LOS	C											

Future Build-out Year (2045) With Project Conditions - AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	597	821	0	0	21
Future Vol, veh/h	0	597	821	0	0	21
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	628	864	0	0	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	432
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	*863
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		0
Mov Cap-1 Maneuver	-	-	-	-	-	*863
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		9.28		
HCM LOS				A		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	863		
HCM Lane V/C Ratio	-	-	-	0.026		
HCM Ctrl Dly (s/v)	-	-	-	9.3		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s				
+: Computation Not Defined		*: All major volume in platoon				

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰			↰			↰	
Traffic Vol, veh/h	13	140	107	53	168	24	74	141	17	21	143	24
Future Vol, veh/h	13	140	107	53	168	24	74	141	17	21	143	24
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	143	109	54	171	24	76	144	17	21	146	24
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay, s/veh	10.5	12.5	12.2	11.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	32%	8%	0%	22%	11%
Vol Thru, %	61%	92%	0%	69%	76%
Vol Right, %	7%	0%	100%	10%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	232	153	107	245	188
LT Vol	74	13	0	53	21
Through Vol	141	140	0	168	143
RT Vol	17	0	107	24	24
Lane Flow Rate	237	156	109	250	192
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.377	0.269	0.165	0.397	0.306
Departure Headway (Hd)	5.728	6.206	5.452	5.713	5.744
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	625	578	655	628	623
Service Time	3.786	3.965	3.21	3.77	3.806
HCM Lane V/C Ratio	0.379	0.27	0.166	0.398	0.308
HCM Control Delay, s/veh	12.2	11.3	9.3	12.5	11.3
HCM Lane LOS	B	B	A	B	B
HCM 95th-tile Q	1.8	1.1	0.6	1.9	1.3

Future Build-out Year (2045) With Project Conditions - AM Peak Hour

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	45	21	192	195	5
Future Vol, veh/h	16	45	21	192	195	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	17	47	22	202	205	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	454	208	211	0	-	0
Stage 1	208	-	-	-	-	-
Stage 2	246	-	-	-	-	-
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	564	832	1360	-	-	-
Stage 1	827	-	-	-	-	-
Stage 2	795	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	553	832	1360	-	-	-
Mov Cap-2 Maneuver	553	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	795	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	10.36	0.76		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	177	-	735	-	-	
HCM Lane V/C Ratio	0.016	-	0.087	-	-	
HCM Ctrl Dly (s/v)	7.7	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

HCM 7th Signalized Intersection Summary

4: Maple Ave & Foothill Blvd

Future Build-out Year (2045) With Project Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	547	15	13	675	49	59	129	47	80	73	87
Future Volume (veh/h)	35	547	15	13	675	49	59	129	47	80	73	87
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	576	16	14	711	52	62	136	49	84	77	92
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	169	1405	39	104	1213	89	589	615	222	578	364	435
Arrive On Green	0.10	0.40	0.40	0.06	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3532	98	1781	3358	245	1216	1312	473	1199	776	927
Grp Volume(v), veh/h	37	290	302	14	376	387	62	0	185	84	0	169
Grp Sat Flow(s),veh/h/ln	1781	1777	1853	1781	1777	1826	1216	0	1785	1199	0	1703
Q Serve(g_s), s	1.5	9.4	9.4	0.6	13.7	13.7	2.5	0.0	4.9	3.6	0.0	4.7
Cycle Q Clear(g_c), s	1.5	9.4	9.4	0.6	13.7	13.7	7.2	0.0	4.9	8.5	0.0	4.7
Prop In Lane	1.00		0.05	1.00		0.13	1.00		0.26	1.00		0.54
Lane Grp Cap(c), veh/h	169	707	737	104	642	660	589	0	837	578	0	798
V/C Ratio(X)	0.22	0.41	0.41	0.13	0.59	0.59	0.11	0.00	0.22	0.15	0.00	0.21
Avail Cap(c_a), veh/h	267	707	737	267	642	660	589	0	837	578	0	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.5	17.3	17.3	35.7	20.7	20.7	14.7	0.0	12.6	15.1	0.0	12.5
Incr Delay (d2), s/veh	0.6	1.8	1.7	0.6	3.9	3.8	0.4	0.0	0.6	0.5	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.0	4.1	0.3	6.1	6.3	0.7	0.0	2.0	1.0	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	19.1	19.0	36.3	24.6	24.5	15.0	0.0	13.2	15.6	0.0	13.1
LnGrp LOS	C	B	B	D	C	C	B		B	B		B
Approach Vol, veh/h	629			777			247			253		
Approach Delay, s/veh	19.9			24.8			13.7			14.0		
Approach LOS	B			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	33.8		39.5	9.6	30.9		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.6	11.4		10.5	3.5	15.7		9.2				
Green Ext Time (p_c), s	0.0	2.7		1.3	0.0	2.6		1.3				
Intersection Summary												
HCM 7th Control Delay, s/veh	20.3											
HCM 7th LOS	C											

Future Build-out Year (2045) With Project Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	989	776	0	0	13
Future Vol, veh/h	0	989	776	0	0	13
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	1041	817	0	0	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	408
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	592
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	592
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		11.22		
HCM LOS				B		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	592		
HCM Lane V/C Ratio	-	-	-	0.023		
HCM Ctrl Dly (s/v)	-	-	-	11.2		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Future Build-out Year (2045) With Project Conditions - PM Peak Hour

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔			↔			↔	
Traffic Vol, veh/h	23	139	20	15	115	19	24	119	15	24	106	23
Future Vol, veh/h	23	139	20	15	115	19	24	119	15	24	106	23
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	24	146	21	16	121	20	25	125	16	25	112	24
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay, s/veh	10.1	9.6	9.6	9.5
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	15%	14%	0%	10%	16%
Vol Thru, %	75%	86%	0%	77%	69%
Vol Right, %	9%	0%	100%	13%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	158	162	20	149	153
LT Vol	24	23	0	15	24
Through Vol	119	139	0	115	106
RT Vol	15	0	20	19	23
Lane Flow Rate	166	171	21	157	161
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.232	0.264	0.028	0.22	0.223
Departure Headway (Hd)	5.017	5.578	4.8	5.06	4.993
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	709	638	738	703	712
Service Time	3.094	3.361	2.582	3.146	3.071
HCM Lane V/C Ratio	0.234	0.268	0.028	0.223	0.226
HCM Control Delay, s/veh	9.6	10.4	7.7	9.6	9.5
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.9	1.1	0.1	0.8	0.9

Future Build-out Year (2045) With Project Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	28	70	136	122	17
Future Vol, veh/h	10	28	70	136	122	17
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	11	29	74	143	128	18
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	428	137	146	0	-	0
Stage 1	137	-	-	-	-	-
Stage 2	291	-	-	-	-	-
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	584	911	1436	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	551	911	1436	-	-	-
Mov Cap-2 Maneuver	551	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.88	2.6		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	612	-	778	-	-	
HCM Lane V/C Ratio	0.051	-	0.051	-	-	
HCM Ctrl Dly (s/v)	7.6	0	9.9	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-	

HCM 7th Signalized Intersection Summary

4: Maple Ave & Foothill Blvd

Future Build-out Year (2045) With Project Conditions - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	906	10	18	692	51	42	81	47	62	46	42
Future Volume (veh/h)	73	906	10	18	692	51	42	81	47	62	46	42
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	954	11	19	728	54	44	85	49	65	48	44
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	227	1397	16	121	1103	82	662	522	301	623	421	386
Arrive On Green	0.13	0.39	0.39	0.07	0.33	0.33	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1781	3598	41	1781	3354	249	1304	1113	642	1256	898	824
Grp Volume(v), veh/h	77	471	494	19	386	396	44	0	134	65	0	92
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1826	1304	0	1755	1256	0	1722
Q Serve(g_s), s	3.2	17.7	17.7	0.8	14.9	14.9	1.6	0.0	3.5	2.5	0.0	2.4
Cycle Q Clear(g_c), s	3.2	17.7	17.7	0.8	14.9	14.9	4.0	0.0	3.5	6.0	0.0	2.4
Prop In Lane	1.00		0.02	1.00		0.14	1.00		0.37	1.00		0.48
Lane Grp Cap(c), veh/h	227	690	723	121	584	600	662	0	823	623	0	807
V/C Ratio(X)	0.34	0.68	0.68	0.16	0.66	0.66	0.07	0.00	0.16	0.10	0.00	0.11
Avail Cap(c_a), veh/h	267	690	723	267	584	600	662	0	823	623	0	807
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.8	20.4	20.4	35.1	23.0	23.0	13.0	0.0	12.2	14.0	0.0	11.9
Incr Delay (d2), s/veh	0.9	5.4	5.2	0.6	5.8	5.6	0.2	0.0	0.4	0.3	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	7.9	8.2	0.4	6.8	7.0	0.5	0.0	1.4	0.7	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.7	25.8	25.5	35.7	28.8	28.6	13.2	0.0	12.6	14.3	0.0	12.2
LnGrp LOS	C	C	C	D	C	C	B		B	B		B
Approach Vol, veh/h	1042			801			178			157		
Approach Delay, s/veh	26.2			28.9			12.8			13.1		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	33.1		39.5	12.2	28.3		39.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	22.5		35.5	10.0	22.5		35.5				
Max Q Clear Time (g_c+I1), s	2.8	19.7		8.0	5.2	16.9		6.0				
Green Ext Time (p_c), s	0.0	1.6		0.7	0.1	2.3		0.9				
Intersection Summary												
HCM 7th Control Delay, s/veh	25.1											
HCM 7th LOS	C											