Appendix I:
Traffic Supporting Information

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I.1 - Traffic Analysis

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SANTA ANA & LILAC WAREHOUSE (MCN 2022-0065)

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TRAFFIC ANALYSIS

PREPARED BY: Charlene So | cso@urbanxroads.com
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Reference Number	Agency	Date
14823-04 TA Report	City of Rialto	April 19, 2023

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CAMUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
HBW	Home-Based Work
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
NCHRP	National Cooperative Highway Research Program
OPR	Office of Planning and Research
PA	Production/Attraction
PHF	Peak Hour Factor
Project	Santa Ana & Lilac Warehouse
SBCTA	San Bernardino County Transportation Authority
SBTAM	San Bernardino Transportation Analysis Model
SCAG	Southern California Association of Governments
SED	Socio-economic Data
sf	Square Feet
TA	Traffic Analysis
TAZ	Traffic Analysis Zone
TPA	Transit Priority Area
v/c	Volume to Capacity
VMT	Vehicle Miles Traveled
vphgpl	Vehicles per Hour Green per Lane

1 INTRODUCTION

This report presents the results of the Traffic Analysis (TA) for Santa Ana & Lilac Warehouse ("Project"), which is located on the southwest corner of Lilac Avenue and Santa Ana Avenue in the City of Rialto, as shown on Exhibit 1-1. The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and where necessary recommend improvements to achieve acceptable operations consistent with General Plan level of service goals and policies. This traffic study has been prepared in accordance with the City of Rialto's Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS), the San Bernardino County Congestion Management Program (CMP) Guidelines for CMP Traffic Impact Analysis Reports (Appendix B, 2016 Update), and consultation with City staff during the traffic study scoping process. (1) (2) The City approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TA.

1.1 SUMMARY OF FINDINGS

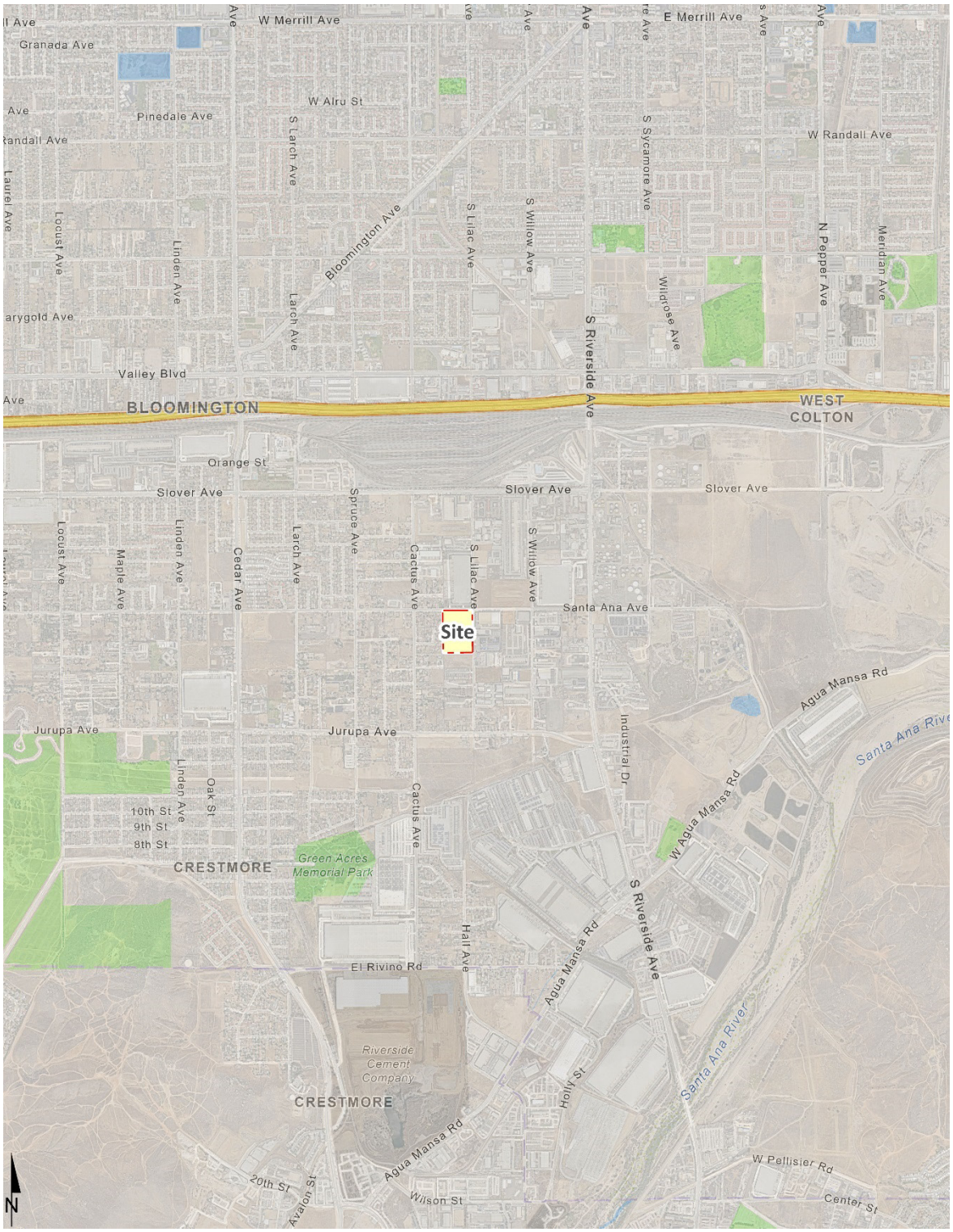
The Project is to construct the following improvements as design features in conjunction with development of the site:

- Project to install stop control on the northbound approach and the westbound left turn lane will be accommodated within the painted median at Project Driveway 1.
- Project to install stop control on the northbound approach and the westbound left turn lane will be accommodated within the painted median at Project Driveway 2.
- Project to install stop control on the eastbound approach at Project Driveway 3.
- Project to construct Lilac Avenue at its ultimate half-section width as a Collector (64-foot right-of-way) from Santa Ana Avenue to the Project's southern boundary consistent with the City's standards.
- Project to construct Santa Ana Avenue at its ultimate half-section as a Secondary Arterial (88-foot right-of-way) from the Project's western boundary to Lilac Avenue consistent with the City's standards.

Additional details and intersection lane geometrics are provided in Section 1.6 *Recommendations* of this report. The proposed Project is not anticipated to require the construction of any off-site improvements. As such, the Project Applicant's responsibility for the Project's contributions towards deficient off-site intersections is fulfilled through payment into pre-existing fee programs (if applicable) that would be assigned to the future construction of any future local/regional improvement needs. The Project Applicant would be required to pay requisite fees consistent with the City's requirements (see Section 7 *Local and Regional Funding Mechanisms*).

The Project did not meet any of the City's described screening criteria and, as required by City guidelines, a project level vehicle miles traveled (VMT) analysis was performed. The Project level VMT analysis determined that VMT generated per employee did not exceed the City's impact threshold. The Project's VMT impacts, therefore, are presumed to be less than significant.

EXHIBIT 1-1: LOCATION MAP



1.2 PROJECT OVERVIEW

A preliminary site plan for the proposed Project is shown on Exhibit 1-2. The Project is proposed to consist of a single 301,000 square foot warehouse building. The Project is anticipated to be constructed in one phase by the year 2024. As indicated on Exhibit 1-2, the following driveways will be assumed to provide access to the Project site (all driveways will allow for full access):

- Driveway 1 on Santa Ana Avenue – passenger cars only
- Driveway 2 on Santa Ana Avenue – passenger cars & trucks
- Driveway 3 on Lilac Avenue – passenger cars & trucks

Regional access to the Project site is available from the I-10 Freeway via Riverside Avenue interchange. Exhibit 1-3 depicts the location of the proposed Project in relation to the existing roadway network and the study area intersections.

In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) for Warehousing (ITE Land Use Code 150) was used. (3) The vehicle and truck mix are consistent with the City's traffic study guidelines. The Project is anticipated to generate a total of 520 trip-ends per day with 52 AM peak hour trips and 55 PM peak hour trips (in actual vehicles). The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2022) Conditions
- Existing plus Ambient Growth plus Project (EAP) (2024) Conditions
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2024) Conditions

1.3.1 EXISTING (2022) CONDITIONS

Information for Existing (2022) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. For a detailed discussion on the existing traffic counts, see Section 3.6 *Existing Traffic Counts*.

1.3.2 EAP (2024) CONDITIONS

The Existing plus Ambient Growth plus Project (EAP) conditions analysis determines traffic deficiencies that would occur on the existing roadway system with the addition of Project traffic. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth factor from Existing conditions of 4.04% (2% per year, compounded annually over 2 years) is included for EAP (2024) traffic conditions. The ambient growth is consistent with the growth used by other projects in the area within the City of Rialto.

EXHIBIT 1-2: PRELIMINARY SITE PLAN

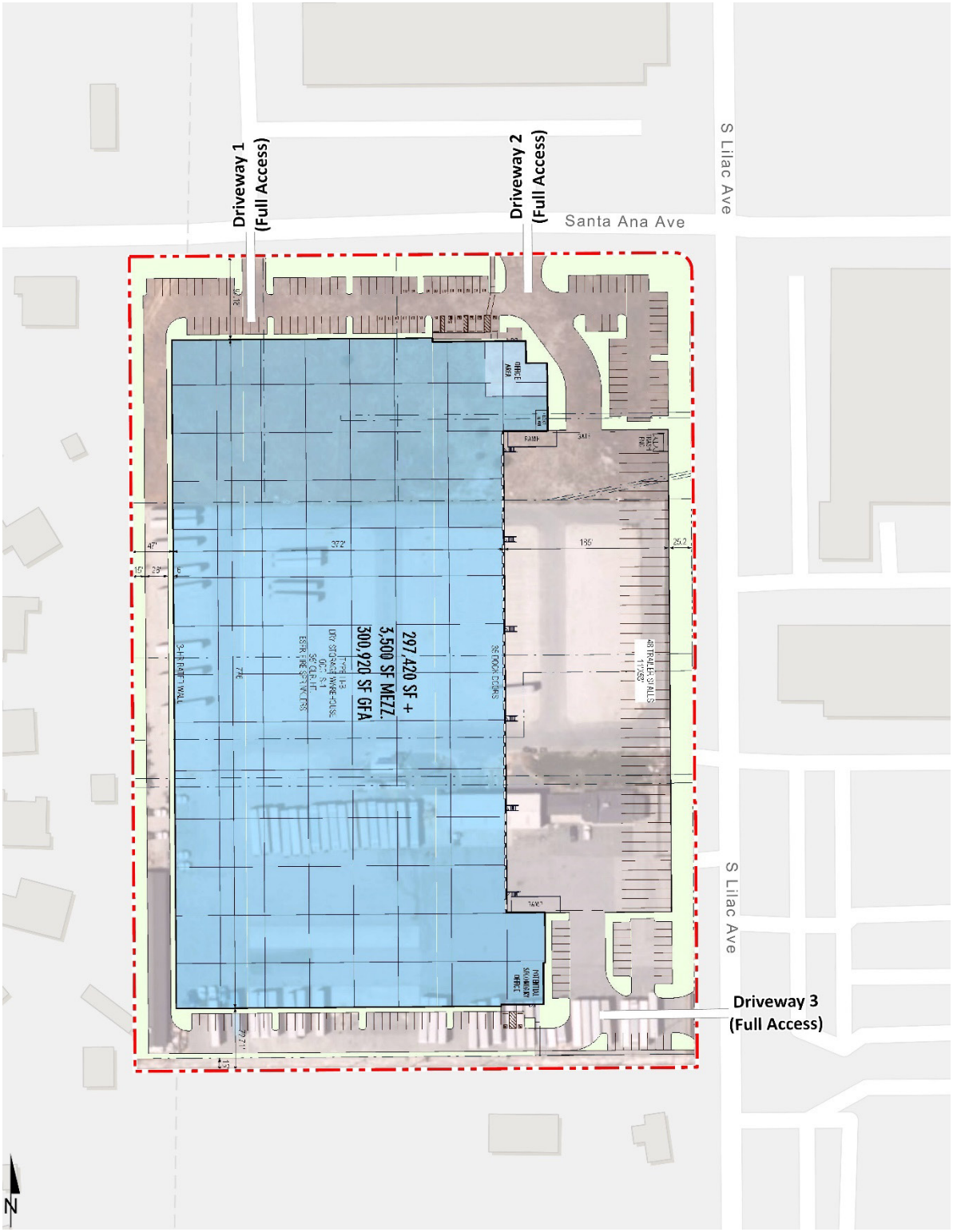
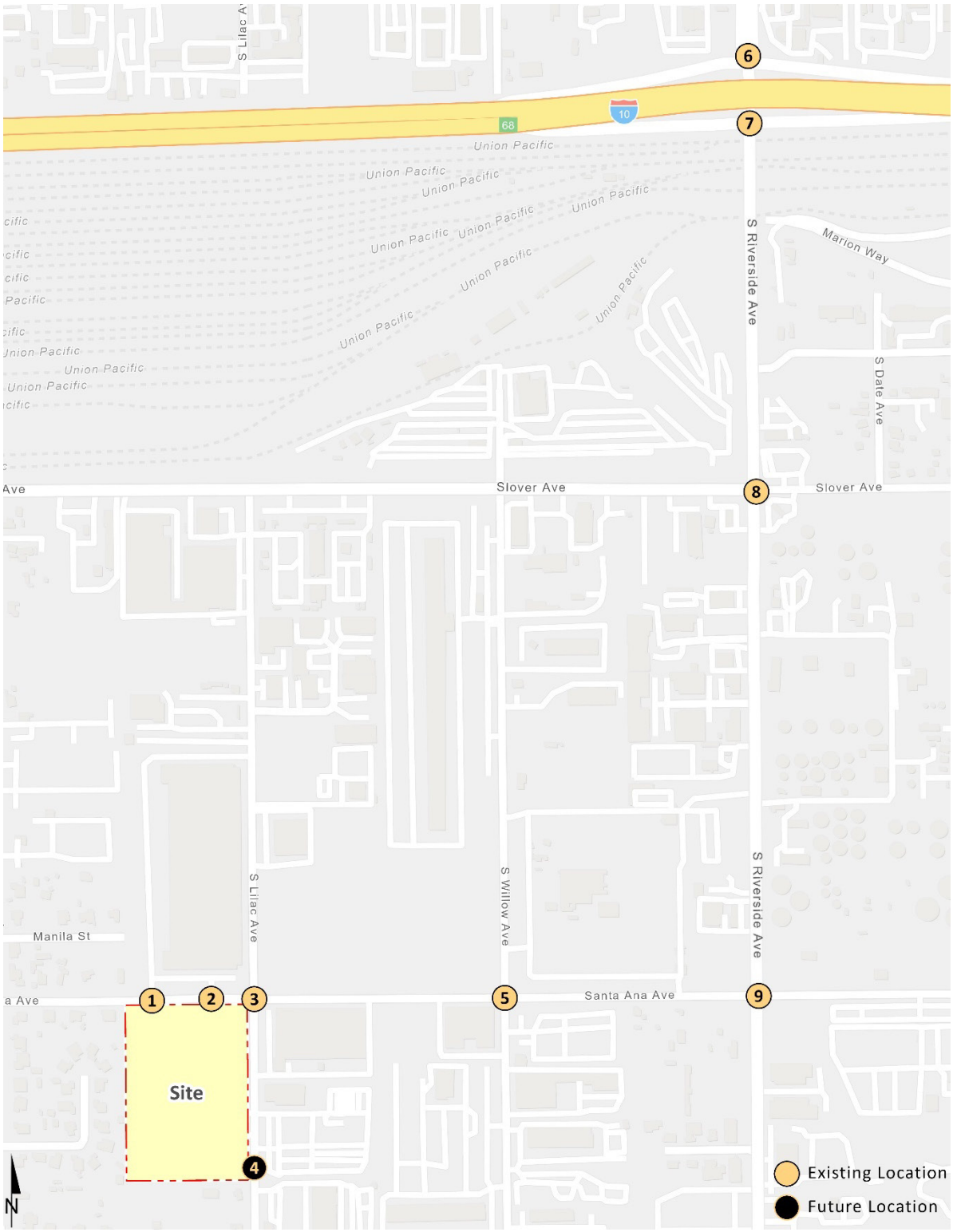


EXHIBIT 1-3: STUDY AREA



1.3.3 EAPC (2024) CONDITIONS

The Existing plus Project plus Ambient Growth plus Cumulative (EAPC) (2024) traffic conditions analysis determines the potential near-term cumulative circulation system deficiencies. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth factor from Existing conditions of 4.04% is included for EAPC (2024) traffic conditions. The ambient growth is consistent with the growth used by other projects in the area. This comprehensive list was compiled from information provided by the City of Rialto and other near-by agencies.

1.4 STUDY AREA

To ensure that this TA satisfies the City of Rialto's traffic study requirements, Urban Crossroads, Inc. prepared a Project traffic study scoping package for review by City of Rialto staff prior to the preparation of this report. This agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The agreement approved by the City is included in Appendix 1.1 of this TA.

The 9 study area intersections shown on Exhibit 1-3 and listed in Table 1-1 were selected for evaluation in this TA based on consultation with City of Rialto staff. At a minimum, the study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the City's traffic study guidelines. (1) The "50 peak hour trip" criterion represents a minimum number of trips at which a typical intersection would have the potential to be affected by a given development proposal. The 50 peak hour trip criterion is a traffic engineering rule of thumb that is accepted and widely used within San Bernardino County for estimating a potential area of influence (i.e., study area).

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

#	Intersection	Jurisdiction	CMP?
1	Driveway 1 & Santa Ana Av.	Rialto	No
2	Driveway 2 & Santa Ana Av.	Rialto	No
3	Lilac Av. & Santa Ana Av.	Rialto	No
4	Lilac Av. & Driveway 3	Rialto	No
5	Willow Av. & Santa Ana Av.	Rialto	No
6	Riverside Av. & I-10 WB Ramps	Rialto, Caltrans	No
7	Riverside Av. & I-10 EB Ramps	Rialto, Caltrans	No
8	Riverside Av. & Slover Av.	Rialto	No
9	Riverside Av. & Santa Ana Av.	Rialto	No

The intent of a Congestion Management Program (CMP) is to more link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of San Bernardino CMP became effective with the passage of Proposition 111 in 1990 and last updated in 2016 with an updated Nexus Study completed in 2020. (2) There are no study area intersections identified as a San Bernardino County CMP intersection.

1.5 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 5 *EAP (2024) Traffic Conditions* and Section 6 *EAPC (2024) Traffic Conditions* include the detailed analysis. A summary of LOS results for all analysis scenarios is presented on Table 1-2.

TABLE 1-2: SUMMARY OF LOS

		Existing (2022)		EAP (2024)		EAPC (2024)	
#	Intersection	AM	PM	AM	PM	AM	PM
1	Driveway 1 & Santa Ana Av.	A - D	A - D	A - D	A - D	A - D	A - D
2	Driveway 2 & Santa Ana Av.	A - D	A - D	A - D	A - D	A - D	A - D
3	Lilac Av. & Santa Ana Av.	A - D	A - D	A - D	A - D	A - D	A - D
4	Lilac Av. & Driveway 3	N/A	N/A	A - D	A - D	A - D	A - D
5	Willow Av. & Santa Ana Av.	A - D	A - D	A - D	A - D	A - D	A - D
6	Riverside Av. & I-10 WB Ramps	A - D	A - D	A - D	A - D	A - D	A - D
7	Riverside Av. & I-10 EB Ramps	A - D	A - D	A - D	A - D	E	F
8	Riverside Av. & Slover Av.	A - D	A - D	A - D	A - D	F	F
9	Riverside Av. & Santa Ana Av.	A - D	A - D	A - D	A - D	A - D	A - D

A - D = A - D E = E F = F

1.5.1 EXISTING (2022) CONDITIONS

Intersections

All of the study area intersections are currently operating at an acceptable LOS during the weekday AM and PM peak hours.

Off-Ramp Queuing Analysis

A queuing analysis was performed for the I-10 Freeway off-ramps at Riverside Avenue for Existing (2022) traffic conditions. The analysis indicates there are currently no queuing issues that may potentially "spill back" onto the I-10 Freeway mainline at the study area interchange.

1.5.2 EAP (2024) CONDITIONS

Intersections

All of the study area intersections are anticipated to continue to operate at an acceptable LOS under EAP (2024) traffic conditions with the addition of Project traffic.

Off-Ramp Queuing Analysis

There are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAP (2024) traffic conditions, consistent with Existing (2022) traffic conditions.

1.5.3 EAPC (2024) CONDITIONS

Intersections

The following study area intersections are anticipated to operate at an unacceptable LOS during one or both peak hours under EAPC (2024) traffic conditions:

- Riverside Av. & I-10 EB Ramps (#7) – LOS E AM peak hour; LOS F PM peak hour
- Riverside Av. & Slover Av. (#8) – LOS F AM and PM peak hours

Off-Ramp Queuing Analysis

There are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAPC (2024) traffic conditions.

1.6 RECOMMENDATIONS

1.6.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The following recommendations are based on the minimum improvements needed to accommodate site access and maintain acceptable peak hour operations for the proposed Project. The site adjacent recommendations are shown on Exhibit 1-4. Striping plans showing the site adjacent improvements are also shown on Exhibit 1-5.

Recommendation 1 **–** Driveway 1 & Santa Ana Avenue (#1) – The following improvement is necessary to accommodate site access:

- Project to install stop control on the northbound approach and the westbound left turn lane would be accommodated within the painted median. This driveway should align with the existing driveway on the north side of Santa Ana Avenue.

Recommendation 2 **–** Driveway 2 & Santa Ana Avenue (#2) – The following improvement is necessary to accommodate site access:

- Project to install stop control on the northbound approach and the westbound left turn lane would be accommodated within the painted median. This driveway should align with the existing driveway on the north side of Santa Ana Avenue.

Recommendation 3 **–** Lilac Avenue & Santa Ana Avenue (#3) – Based on the frontage roadway improvements to be implemented by the Project, the intersection should be modified to accommodate a dedicated eastbound left turn lane (within the painted median) and accommodate a single eastbound through lane (until such time Santa Ana Avenue is widened to its ultimate to the east of Lilac Avenue and can accommodate the receiving lanes for a second through lane).

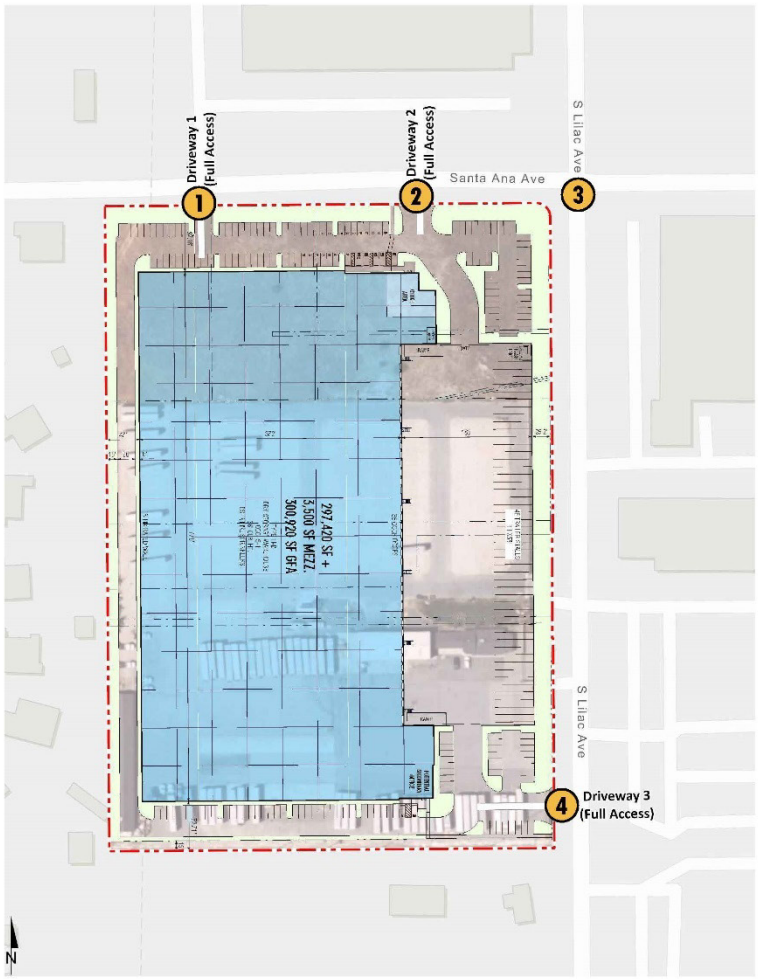
Recommendation 4 **–** Lilac Avenue & Driveway 2 (#4) – The following improvement is necessary to accommodate site access:

- Project to install stop control on the eastbound approach.

Recommendation 5 – Lilac Avenue is a north-south oriented roadway located along the Project's eastern boundary. Project to construct Lilac Avenue at its ultimate half-section width as a Collector (64-foot right-of-way) from Santa Ana Avenue to the Project's southern boundary consistent with the City's standards. There are no bicycle lanes planned adjacent to the Project along Lilac Avenue, however, the Project will implement a 5-foot sidewalk and a landscaped area between the sidewalk and roadway curb along its frontage consistent with the Collector cross-section.

Recommendation 6 – Santa Ana Avenue is an east-west oriented roadway located along the Project's northern boundary. Project to construct Santa Ana Avenue at its ultimate half-section width as a Secondary Highway (88-foot right-of-way) from the Project's western boundary to Lilac Avenue consistent with the City's standards. Santa Ana Avenue is designated as a Class II (on-street, striped) bike route, in addition, the Project will implement sidewalk and landscaping improvements along its frontage consistent with the Secondary Highway cross-section.

EXHIBIT 1-4: SITE ACCESS RECOMMENDATIONS



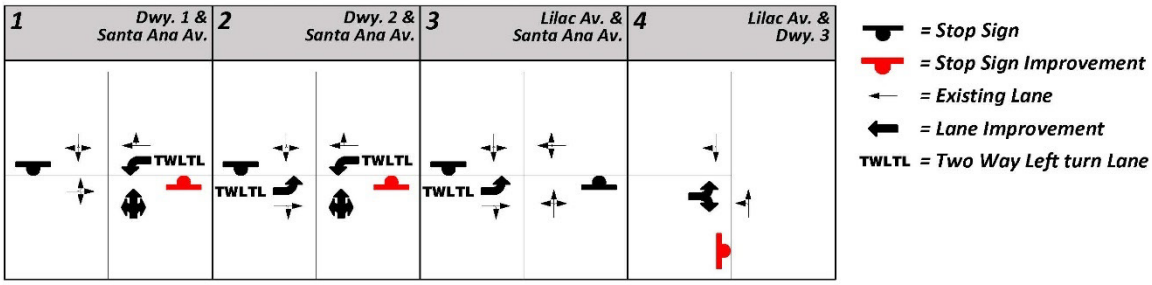
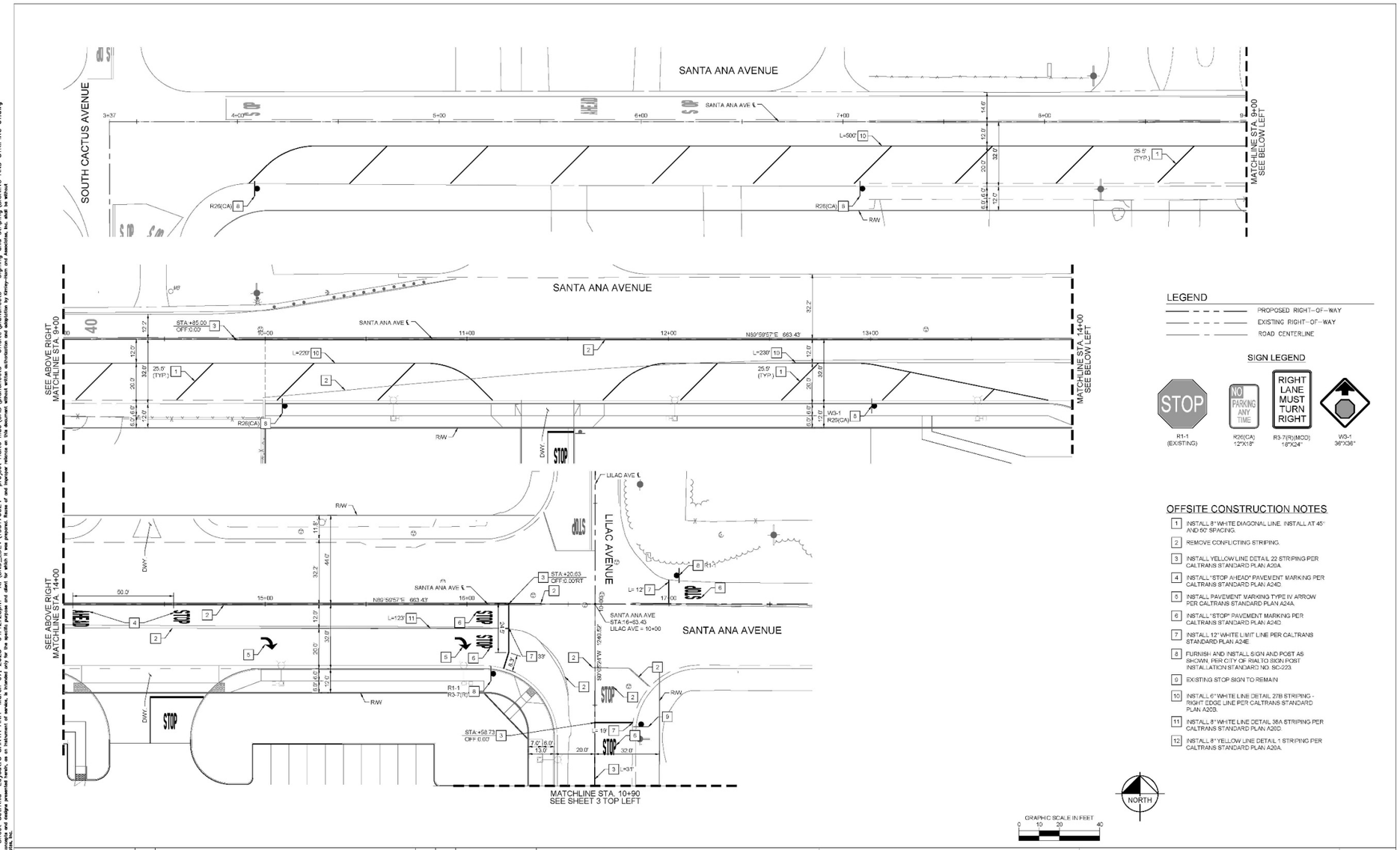
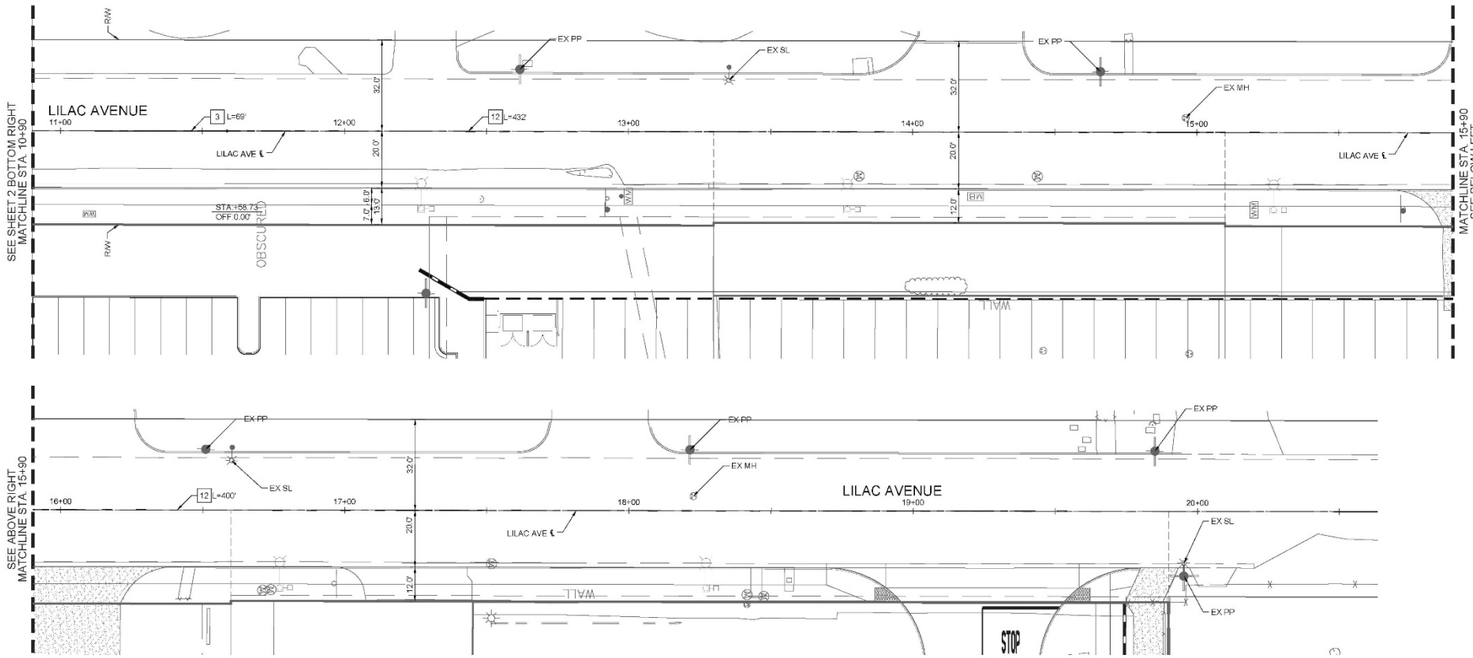


EXHIBIT 1-5: SITE ADJACENT CONCEPTUAL STRIPING PLAN





LEGEND

PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
ROAD CENTERLINE

SIGN LEGEND



R1-1 (EXISTING) | R26(CA) 12"X18" | R3-7(R)(MOD) 18"X24" | W3-1 36"X36"

OFFSITE CONSTRUCTION NOTES

1. INSTALL 8" WHITE DIAGONAL LINE. INSTALL AT 45° AND 50' SPACING.
2. REMOVE CONFLICTING STRIPING.
3. INSTALL YELLOW LINE DETAIL 22 STRIPING PER CALTRANS STANDARD PLAN A20A.
4. INSTALL "STOP AHEAD" PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24D.
5. INSTALL PAVEMENT MARKING TYPE IV ARROW PER CALTRANS STANDARD PLAN A24A.
6. INSTALL "STOP" PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24D.
7. INSTALL 12" WHITE LIMIT LINE PER CALTRANS STANDARD PLAN A24E.
8. FURNISH AND INSTALL SIGN AND POST AS SHOWN, PER CITY OF RIALTO SIGN POST INSTALLATION STANDARD NO. SC-223.
9. EXISTING STOP SIGN TO REMAIN
10. INSTALL 6" WHITE LINE DETAIL 27B STRIPING - RIGHT EDGE LINE PER CALTRANS STANDARD PLAN A20B.
11. INSTALL 8" WHITE LINE DETAIL 38A STRIPING PER CALTRANS STANDARD PLAN A20D.
12. INSTALL 8" YELLOW LINE DETAIL 1 STRIPING PER CALTRANS STANDARD PLAN A20A.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: MP DRAWN BY: MP CHECKED BY: JC

SEAL-DESIGN ENGINEER
REGISTERED PROFESSIONAL ENGINEER EUGENE DAVIS COWAN III No. 86803 CIVIL STATE OF CALIFORNIA
Pursuant to SB 2329 3/7/23
DATE: 3/7/2023

PREPARED UNDER THE SUPERVISION OF:
EUGENE DAVIS COWAN III, RCE 86803 — DATE 3/7/2023
RECOMMENDED FOR APPROVAL BY ENGINEERING RESOURCES OF SOUTHERN CALIFORNIA:
JOHN W. BRUDIN, RCE 41836 — DATE
APPROVED BY:
VINCENTE GIRON, ENGINEER — DATE

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WWW.KIMLEY-HORN.COM

BENCH MARK: CITY OF RIALTO BENCHMARK NO. "016-98" ELEVATION= 1,004.842 FEET
DESCRIPTION: CITY OF RIALTO BRASS DISC SET IN TOP OF CURB, 32 FEET SOUTH OF CENTERLINE SANTA ANA 51 FEET WEST OF CENTERLINE CACTUS.
DATUM OF 1929, CITY OF RIALTO DATUM

CITY OF RIALTO
SANTA ANA AND LILAC WAREHOUSE
SIGNING AND STRIPING PLANS
SIGNING AND STRIPING PLANS

3 OF 3 SHEETS

FOR: SANTA ANA AND LILAC WAREHOUSE | XXXX | PLAN No. _____

Plotted By:Perez, Luis Sheet Set:Kha Layout:LILAC AVE March 07, 2023 04:12:34pm K:\SND_LDEV\195170024 — project rialto lilac\CAD\plansheets — offsite\plansheets — signing and striping\SIGNING AND STRIPING 01.dwg

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without

On-site traffic signing and striping should be implemented agreeable with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Project site.

1.6.2 OFF-SITE RECOMMENDATIONS

The recommended improvements needed to address the cumulative deficiencies identified under EAPC (2024) traffic conditions are summarized in Table 1-3. For those improvements listed in Table 1-3 and not constructed as part of the Project, the Project Applicant's responsibility for the Project's contributions towards deficient intersections is fulfilled through payment of fees or fair share that would be assigned to construction of the identified recommended improvements.

Table 1-3 also summarizes the applicable cost associated with each of the recommended improvements based on the applicable improvement projects. Based on the Project fair share percentages, the Project's fair share cost is estimated at $848,405. These estimates are a rough order of magnitude only as they are intended only for disclosure purposes and do not imply any legal responsibility or formula for contributions or mitigation.

Recommendation 7 – A fair share of $848,405 has been identified based on the costs associated with the proposed improvements. However, as noted in Table 1-3, it is unclear what percentage or amount of these improvements are covered by the City's existing Development Impact Fee (DIF) program. The City's DIF Nexus Study could not be obtained in order to verify the improvements included in the DIF program and calculate the Project's fair share of improvements not included in a pre-existing fee program. As such, the Project Applicant should work with the City to determine the improvements and dollar amount covered by the City's pre-existing DIF program. The Project Applicant will be required to pay $842,800 based on the City's current DIF fee schedule (Regional traffic Fee and Street Medians Fee). Once the appropriate fair share amount has been determined, the Developer shall be required to pay the fair share amount to the City of Rialto prior to the issuance of building permits.

1.6.3 CITY CODE OF ORDINANCES

The proposed Project should also comply with the following performance standards of the Code of Ordinances:

1. New or modified indoor storage facilities shall route all vehicles associated with the use (trucks, vans, passenger vehicles, etc.) on roadways to avoid passing residential, educational, park and open space intended for public park and recreational use intended for public park and recreational use areas to the greatest extent feasible.
2. The queuing of trucks on streets or elsewhere outside of the facility shall be prohibited. All queuing, stacking, loading, unloading, and parking shall occur exclusively on-site. The property owner and operator shall be responsible for ensuring compliance with this performance standard.
3. The operator of the indoor storage facility shall be responsible for implementing and monitoring an operations and truck route plan during all operations, including, but not limited to posting the plan and educating truck drivers on the approved routes.
4. Indoor storage facilities shall not store any products, goods, commodities, materials, supplies, or containers outside of any building on-site, except for trucks and trailers associated with the indoor storage facility, without prior approval of a separate conditional development permit in accordance with Chapter 18.104 of the Rialto Municipal Code.

5. Truck drivers shall not sleep or reside within any truck cab on-site overnight or for any other extended duration of time.
6. Operators shall address any parking, traffic, noise, or safety issues within forty-eight hours of being notified by the city that an issue exists.
7. Prior to the issuance of a business compliance certificate, any new tenant or operator of an indoor storage facility shall: 1) submit an operational plan and trip generation analysis prepared by a licensed traffic engineer for review and approval demonstrating the proposed operations and projected traffic associated with the new tenant or operator is the same or less than the projected traffic assumed in the approved entitlements for the facility; and 2) sign a statement acknowledging acceptance of all operational conditions of approval associated with the approved entitlements for the facility. If the proposed operations and trip generation represent a significant change in operational characteristics or more than ten percent increase in trip generation beyond what was entitled, a modification to the conditional development permit shall be required prior to the start of operations.
8. The property owner and/or operator shall be responsible for implementing the approved property maintenance program and maintaining the property in good physical condition.

1.7 TRUCK ACCESS

Due to the typical wide turning radius of large trucks, a truck turning template has been overlaid on the site plan at each applicable Project driveway anticipated to be utilized by heavy trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turning maneuvers (see Exhibit 1-6). A WB-67 truck (53-foot trailer) has been utilized for the purposes of this analysis. As shown on Exhibit 1-6, the following modifications should be made to the site plan in order to accommodate truck turns:

- Driveway 2: modify the southwest and southeast corners to accommodate a 50-foot curb radius in addition to widening the driveway by 10-feet to accommodate truck turns.

TABLE 1-3: SUMMARY OF IMPROVEMENTS AND ROUGH ORDER OF MAGNITUDE COSTS

#	Intersection Location	Jurisdiction	EAP (2024)	EAPC (2024)	Improvements in Fee Program?[1]	Project Responsibility[2]	Total Cost	Fair Share %[3]	Fair Share Cost[4]
7	Riverside Av. & I-10 EB Ramps	Rialto, Caltrans	- None	- Add 2 NB through lanes	Yes	Fees/Fair Share[5]	$10,346,300	4.0%	$410,182
						Total	**$10,346,300**		**$410,182**
8	Riverside Av. & Slover Av.	Rialto	- None	- Add a 3rd NB through lane	Yes	Fees/Fair Share[6]	$9,600,000	4.6%	$438,223
				- Add a 3rd SB through lane	Yes	Fees/Fair Share[6]			
				- Add a SB right turn lane	Yes	Fees/Fair Share	--[7]		--
						Total	**$9,600,000**		**$438,223**
				Total Project Fair Share Contribution to the City of Rialto				**$848,405**	

[1] Improvements included in City Development Impact Fee (DIF) or regional (SBCTA Measure I) fee program.

[2] Identifies the Project's responsibility to construct an improvement or contribute fair share or fee payment towards the implementation of the improvements shown. If identified as a Project construct obligation, then no fair share percentage has been identified.

[3] Program improvements constructed by Project may be eligible for fee credit, at discretion of the City. See Table 7-1 for Fair Share Calculations. The highest peak hour fair share percentage for each intersection, as shown in Table 7-1, has been utilized.

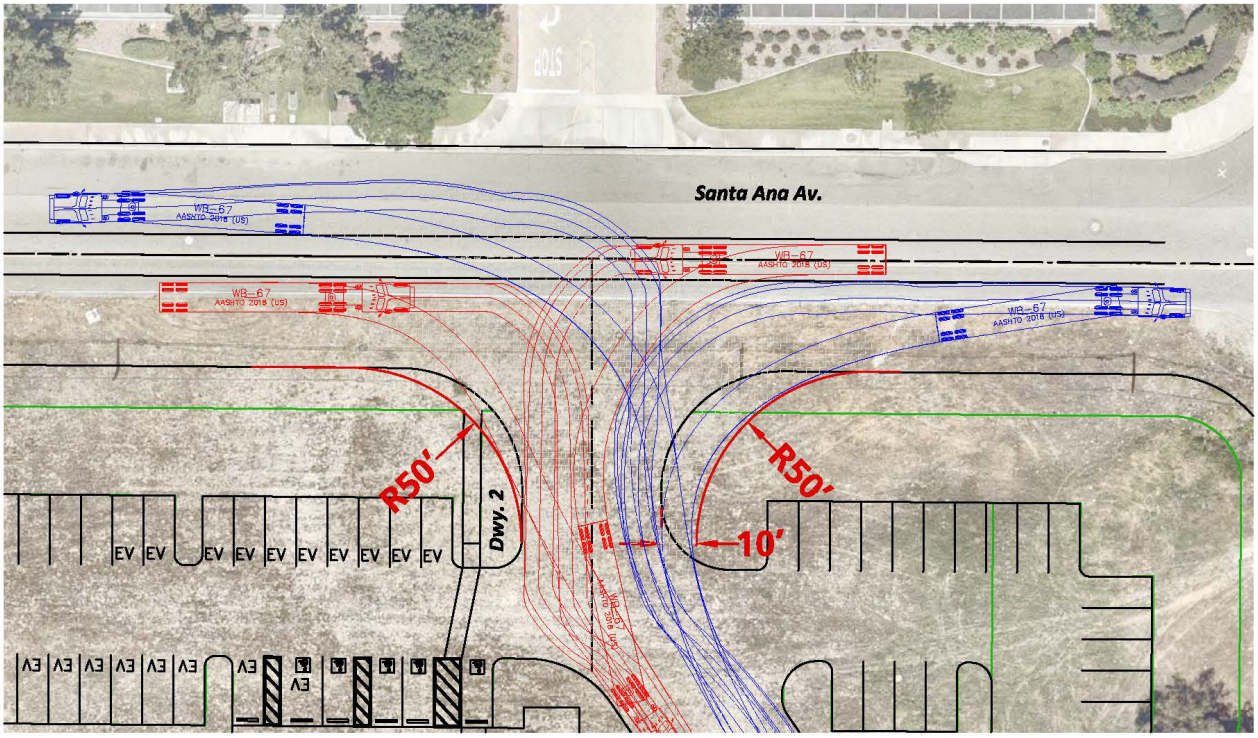
[4] Total Cost x Fair Share % = Project Fair Share Cost

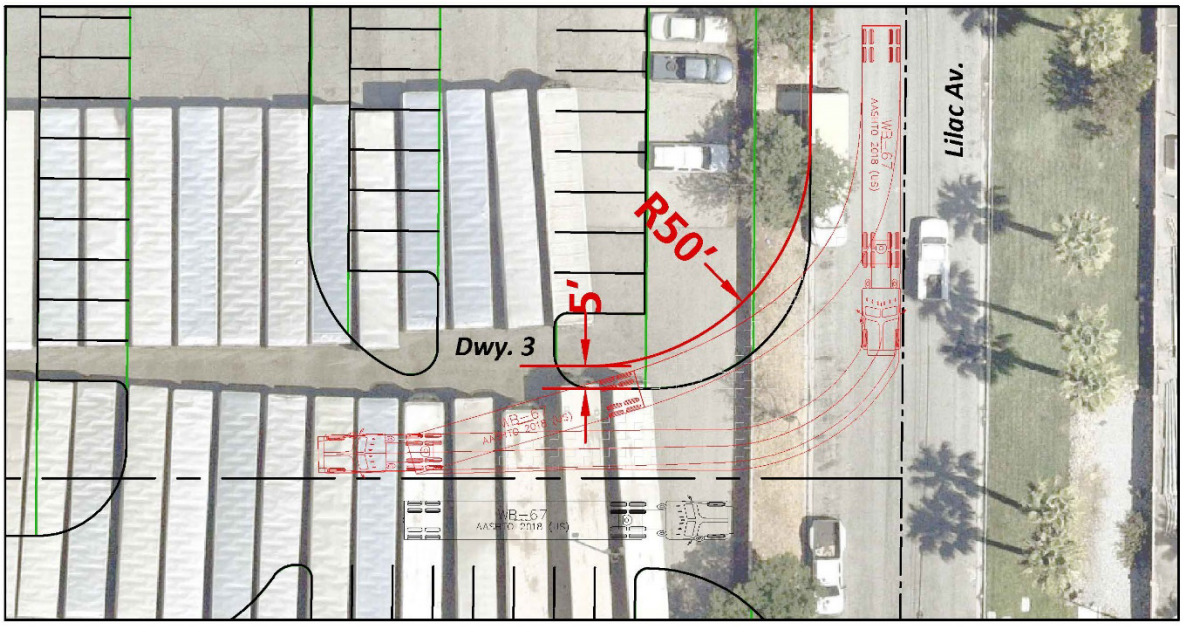
[5] Source: I-10/Riverside Avenue Freight Improvement Project Fact Sheet ($35.5M total cost with $19.8M from TCEP and a local match of $15.7M of which 65.9% is to come from Rialto).

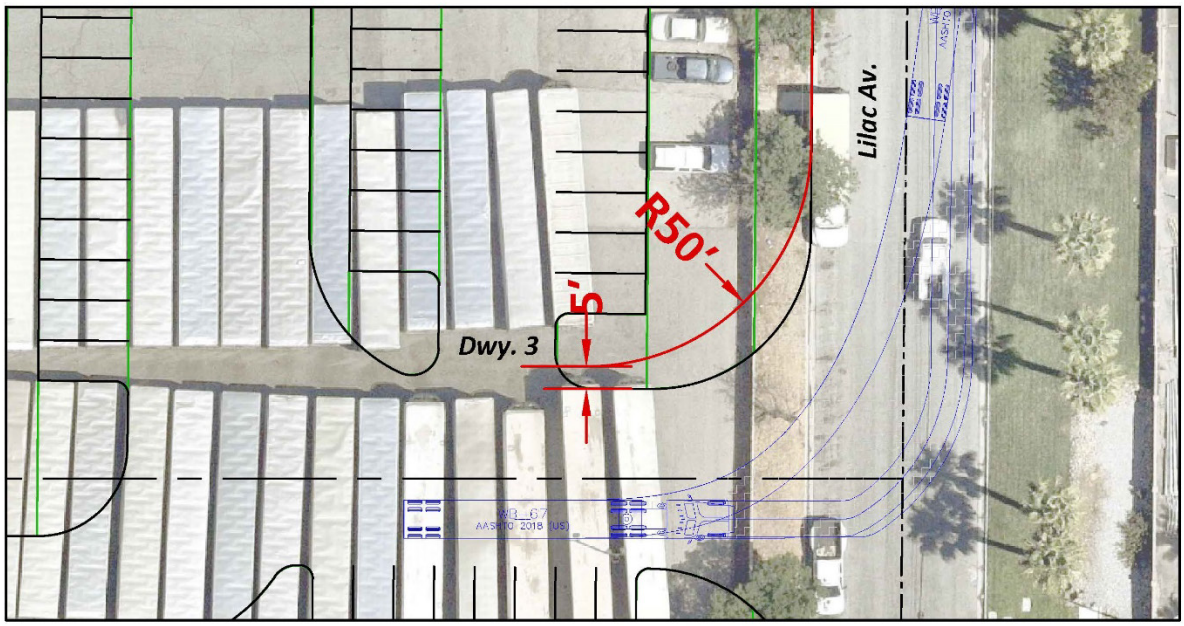
[6] Source: Riverside Avenue South Street Reconstruction Project Fact Sheet ($9.6M funded through Gas Tax, SB1 Gas Tax, and Measure I).

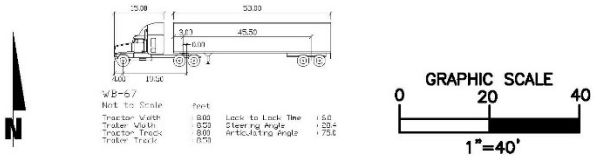
[7] Proposed improvement is included as part of the I-10/Riverside Avenue Freight Improvement Project (identified previously) for the segment of Riverside Avenue north of Slover Avenue.

EXHIBIT 1-6: TRUCK ACCESS AT DRIVEWAYS 2 & 3




Lilac Av.
R50'
5'
Dwy. 3


Lilac Av.
R50'
5'
Dwy. 3


N
GRAPHIC SCALE
0
20
40
1"=40'

1.8 QUEUING ANALYSIS

A queuing analysis was conducted along the site adjacent intersection of Lilac Avenue and Santa Ana Avenue, and at the Project's driveways for EAPC (2024) traffic conditions to determine the turn pocket lengths and lane geometric necessary to accommodate near-term 95th percentile queues and recommend storage lengths for the turning movements shown on Exhibit 1-4. The analysis was conducted for the weekday AM and weekday PM peak hours using the SimTraffic modeling software. Queuing analysis results for the Project driveways and site adjacent intersection of Lilac Avenue and Santa Ana Avenue is provided in Appendix 1.3. No site adjacent queues are anticipated with the proposed improvements

SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine-tuning signal operations. SimTraffic uses the input parameters from Synchro (Version 11) to generate random simulations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed for each turn lane. A SimTraffic simulation has been recorded 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 30-minute periods with 60-minute recording intervals.

TABLE 1-4: QUEUING ANALYSIS SITE ADJACENT INTERSECTIONS FOR EAPC

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
Driveway 1 & Santa Ana Av.	WBL	50	8	6	Yes	Yes
Driveway 2 & Santa Ana Av.	WBL	50	17	12	Yes	Yes
Lilac Av. & Santa Ana Av.	NBL/T/R	370	61	61	Yes	Yes
	SBL/T/R	640	63	55	Yes	Yes
	EBL	50	6	22	Yes	Yes
	EBT/R	225	3	5	Yes	Yes
	WBL/T/R	600	35	35	Yes	Yes
Lilac Av. & Driveway 3	NBL/T	400	5	41	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with City of Rialto's Traffic Study Guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors, such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (4) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Rialto requires signalized intersection operations analysis based on the methodology described in the HCM. (4) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is related to the average control delay per vehicle and is correlated to a LOS designation as described on Table 2-1.

The traffic modeling and signal timing optimization software package Synchro (Version 11) has been utilized to analyze signalized intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Customary practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g., PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing

vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (4)

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Rialto requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (4) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Delay for the intersection is reported for the worst individual movement at a two-way stop-controlled intersection. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or determine the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (5)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (5) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions and for all future analysis scenarios for existing unsignalized intersections. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with rural characteristics. For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. Urban warrants have been used as posted speed limits on the major roadways with unsignalized intersections are 40 miles per hour or below and rural warrants have been used on roadways with speeds greater than 40 miles per hour.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. Similarly, the speed limit has been used as the basis for determining the use of Urban and Rural warrants. Traffic signal warrant analyses were performed for the following study area intersection shown on Table 2-3.

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *EAP (2024) Traffic Conditions* and Section 6 *EAPC (2024) Traffic Conditions* of this report. It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that

signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

#	Intersection
1	Driveway 1 & Santa Ana Av.
2	Driveway 2 & Santa Ana Av.
3	Lilac Av. & Santa Ana Av.
4	Lilac Av. & Driveway 3
5	Willow Av. & Santa Ana Av.

2.4 FREEWAY OFF-RAMP QUEUING ANALYSIS

The study area for this TA includes the I-10 Freeway at Riverside Avenue interchange. The 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing deficiencies at the freeway ramp intersections at the interchanges identified above. Specifically, the queuing analysis is utilized to identify any potential queuing and "spill back" onto the I-10 Freeway mainline from the off-ramps.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential deficiencies/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. There are two footnotes which appear on the Synchro outputs. One footnote indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The other footnote indicates whether or not the volume for the 95th percentile queue is metered by an upstream signal. If the upstream intersection is at or near capacity, the 50th percentile queue represents the maximum queue experienced.

A vehicle is considered queued whenever it is traveling at less than 10 feet/second. A vehicle will only become queued when it is either at the stop bar or behind another queued vehicle. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour and is derived from the average (50th percentile) queue plus 1.65 standard deviations. The queue length reported is for the lane with the highest queue in the lane group. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations.

2.5 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

Minimum Acceptable LOS and associated definitions of intersection deficiencies have been obtained from each of the applicable surrounding jurisdictions.

2.5.1 CITY OF RIALTO

The following LOS will be utilized for study area intersections located within the City: The City of Rialto 2010 General Plan Update has established minimum LOS standards. Specifically, General Plan Policies 4-1.20 and 4-1.21 establish the minimum standards to be applied to any TIA, as follows:

- Policy 4-1.20: Design City streets so that signalized intersections operate at Level of Service (LOS) D or better during the morning and evening peak hours and require new development to mitigate traffic impacts that degrade LOS below that level.
- Policy 4-1.21: Design City streets so that unsignalized intersections operate with no vehicular movement having 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. (1)

The City's Traffic Study Guidelines identifies LOS D as the minimum LOS for intersections and roadway segments, with the exception of Riverside Drive south of the Metrolink tracks to the City's southern border, which can operate at LOS E.

2.5.2 COUNTY OF SAN BERNARDINO

Per the County of San Bernardino's TA Guidelines, the following LOS will be utilized for study area intersections located within the County: Require development to achieve a peak hour Level of Service (LOS) D or better. Therefore, any intersection operating at LOS E or F will be considered deficient for the purposes of this analysis.

2.5.2 SAN BERNARDINO COUNTY CMP

The CMP definition of deficiency is based on maintaining a level of service standard of LOS E or better, where feasible, except where an existing LOS F condition is identified in the CMP document. However, for the purposes of this analysis, LOS D has been utilized for all study area intersections.

2.6 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies.

2.6.1 INTERSECTIONS

City of Rialto

Consistent with the City's traffic study guidelines, new development is required to improve traffic deficiencies exceeding these levels. Deficiencies are deemed to occur at any intersection in which the Project causes the LOS to fall below LOS D or the peak hour delay to increase as follows:

- LOS A/B = By 10.0 seconds
- LOS C = By 8.0 seconds
- LOS D = By 5.0 seconds

- LOS E = By 2.0 seconds
- LOS F = By 1.0 seconds

County of San Bernardino: Signalized Intersections

Per the County's TA Guidelines, the following LOS will be utilized for signalized study area intersections located within the Desert, Valley, and Mountain regions of the County:

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

County of San Bernardino: Unsignalized Intersections

Per the County's TA Guidelines, the following LOS will be utilized for unsignalized study area intersections located within the Desert, Valley, and Mountain regions of the County:

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

  OR

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

  AND

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

The proposed significance thresholds will be applied at study area intersections for the purposes of determining project-related deficiencies. Per the County of San Bernardino traffic study guidelines, improvements for Project level deficiencies should focus on providing operations that offset the Project deficiency to achieve a "no Project" LOS.

2.6.2 CALTRANS FACILITIES

To determine whether the addition of project traffic to the State Highway facilities would result in a deficiency, the following will be utilized:

- The TA finds that the LOS of a ramp-to-arterial intersection will degrade from D or better to E or F.

The TA finds that a project will exacerbate an already deficient condition if it contributes 50 or more one-way peak hour trips.

2.7 PROJECT FAIR SHARE CALCULATION METHODOLOGY

In cases where this TA identifies that the Project would contribute additional traffic volumes to traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified. The Project's fair share cost of improvements is determined based on the following equation, which is the ratio of Project traffic to new traffic, and new traffic is total near-term future (EAPC) traffic less existing baseline traffic:

Project Fair Share % = Project AM/PM Traffic / (EAPC AM/PM Total Traffic – Existing AM/PM Traffic)

The project fair share percentage has been calculated for both the AM peak hour and PM peak hour and the highest of the two has been selected. The Project fair share contribution calculations are presented in Section 7 *Local and Regional Funding Mechanisms* of this TA. The cost of implementing the improvements shown on Table 1-3 have been estimated based on the preliminary construction cost estimates found in Appendix G of the San Bernardino County CMP in conjunction with a total cost escalation factor of 1.674 to more closely approximate current costs. These cost estimates have been utilized in conjunction with the Project fair share percentages to determine the Project's fair share cost of the recommended improvements (see Table 7-1). These estimates are a rough order of magnitude only as they are intended only for discussion purposes and do not imply any legal responsibility or formula for contributions or physical improvements.

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3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Rialto General Plan Circulation Network, and a review of existing peak hour intersection operations, freeway off-ramp queuing, and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Rialto staff (Appendix 1.1), the study area includes a total of 9 existing and future intersections as shown previously on Exhibit 1-3. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF RIALTO GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located within the City of Rialto. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Rialto General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Rialto General Plan Circulation Element and Exhibit 3-3 illustrates the City of Rialto General Plan roadway cross-sections.

The study area roadway that is classified as a Major Arterial is identified as having a 120-foot right-of-way and 94-foot curb-to-curb measurement. Major Arterials include three lanes of travel in each direction and a 16-foot curbed and/or landscaped median. The following study area roadway within the City of Rialto is classified as a Major Arterial:

- Slover Avenue

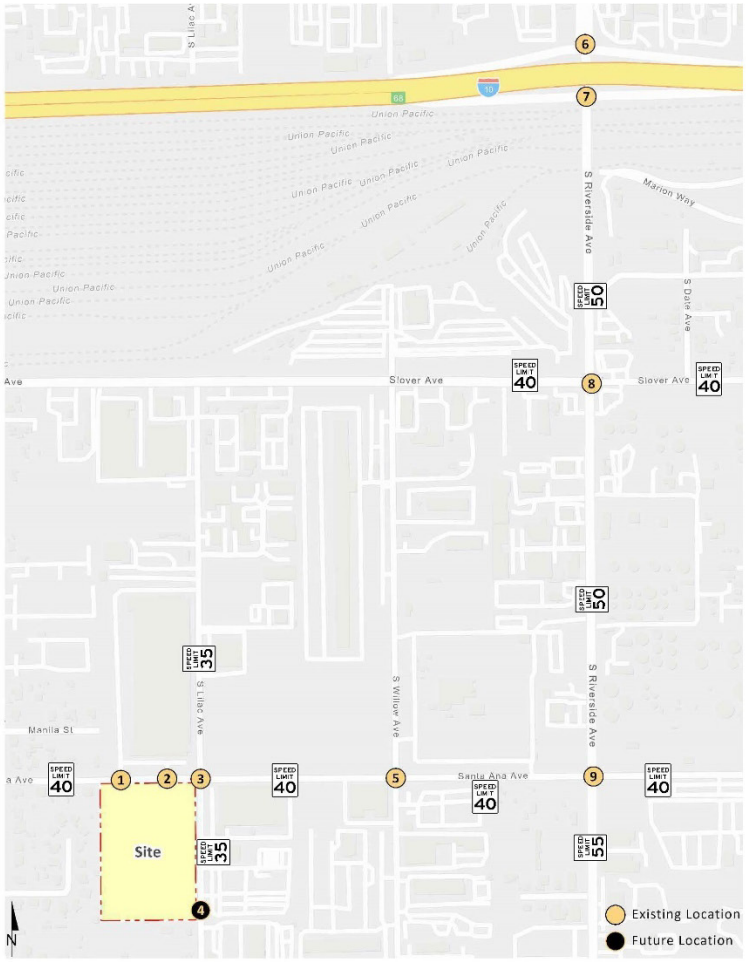
The study area roadway that is classified as a Modified Major Arterial II is identified as having a 120-foot right-of-way and 90-foot curb-to-curb measurement. Modified Major Arterial II includes three lanes of travel in each direction and a 14-foot curbed and/or landscaped median. The following study area roadway within the City of Rialto is classified as a Modified Major Arterial II:

- Riverside Avenue from San Bernardino Avenue to Slover Avenue

The study area roadway that is classified as a Modified Arterial I is identified as having a 104-foot right-of-way and 78-foot curb-to-curb measurement. Modified Arterial I include two lanes of travel in each direction and a 14-foot curbed and/or landscaped median. The following study area roadways within the City of Rialto are classified as a Modified Arterial I:

- Riverside Avenue from Slover Avenue to Jurupa Avenue

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



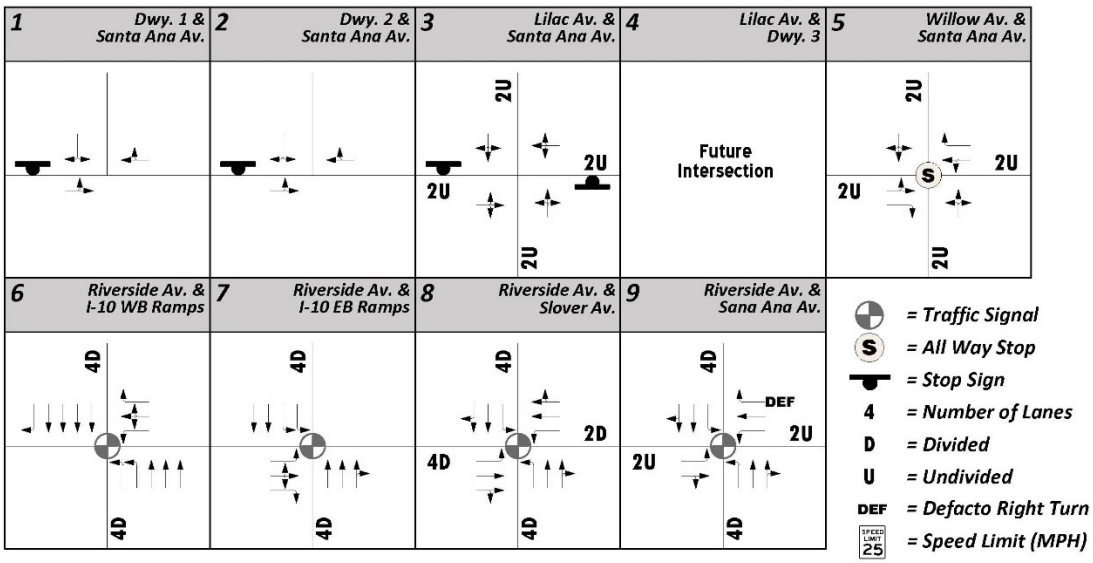


EXHIBIT 3-2: CITY OF RIALTO GENERAL PLAN CIRCULATION ELEMENT

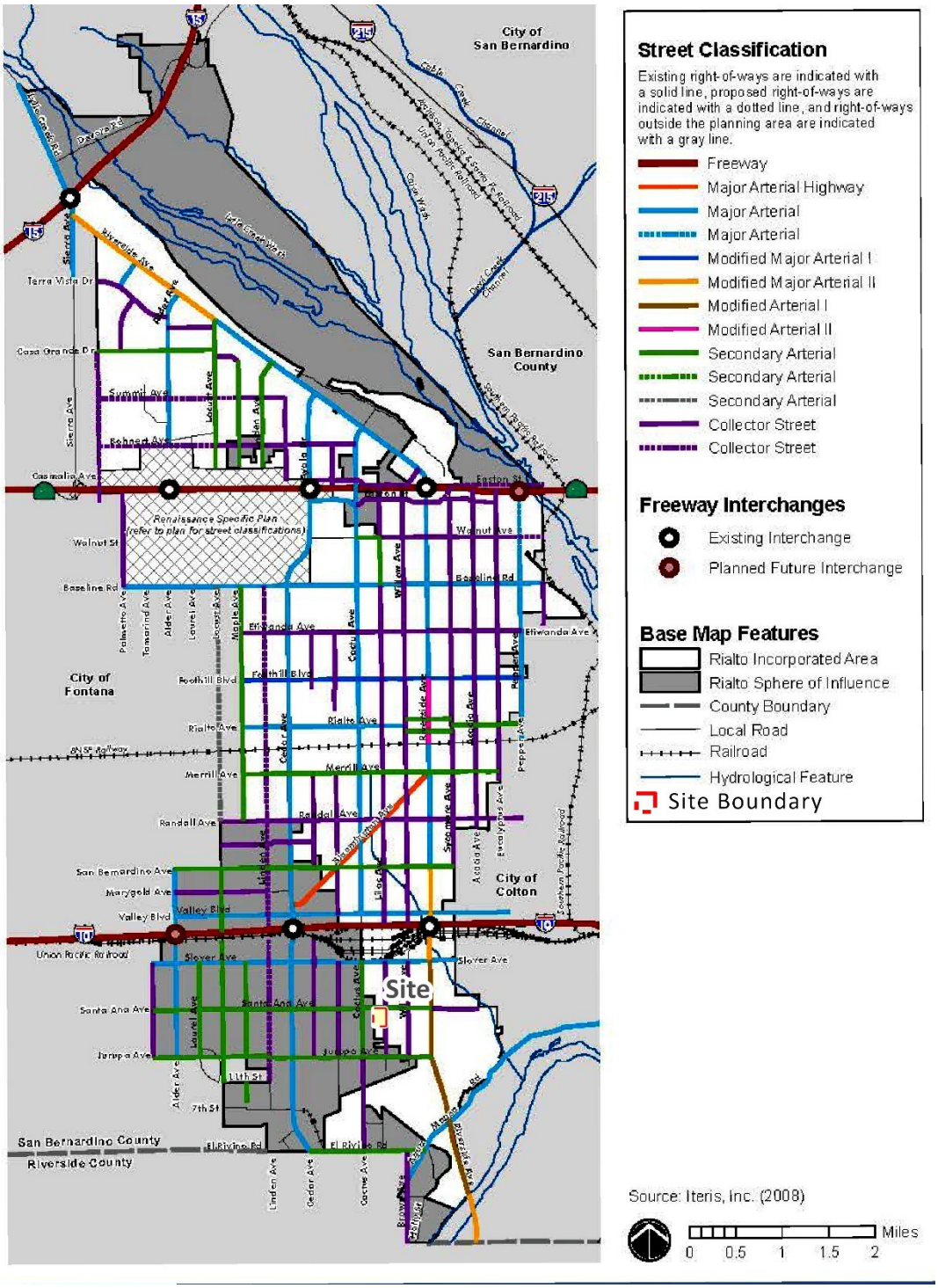
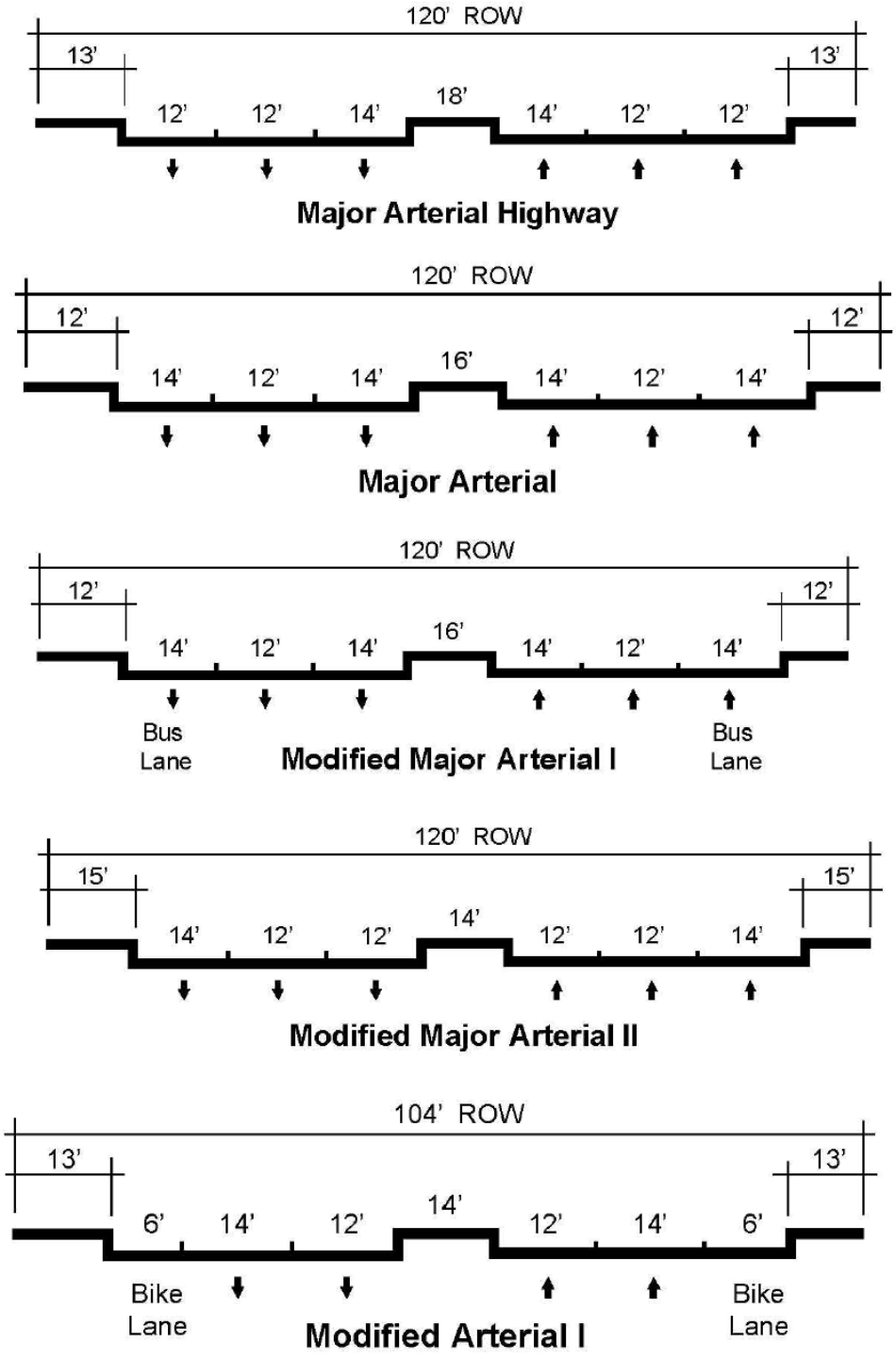
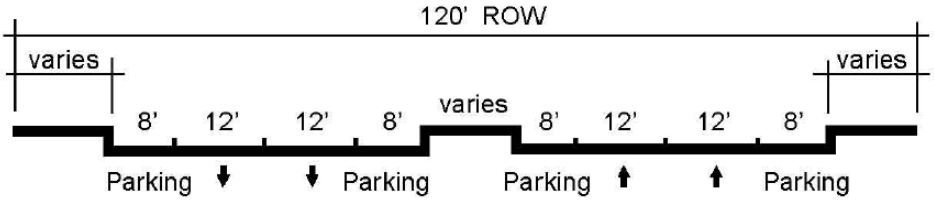
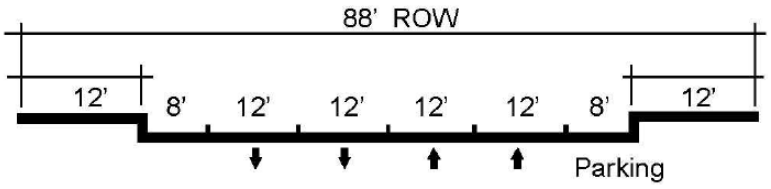


EXHIBIT 3-3: CITY OF RIALTO GENERAL PLAN ROADWAY CROSS-SECTIONS

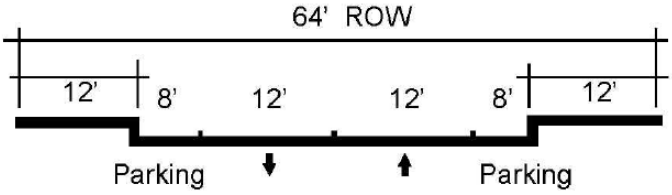




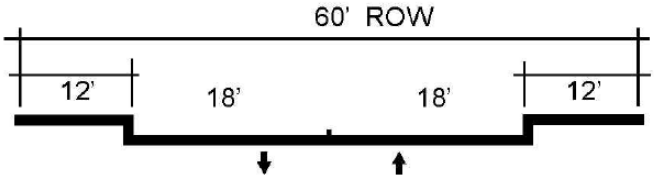
Modified Arterial II



Secondary Arterial



Collector



Local

The study area roadway that is classified as a Collector is identified as having a 64-foot right-of-way and 40-foot curb-to-curb measurement. Collector includes one lane of travel in each direction. The following study area roadways within the City of Rialto are classified as a Collector:

- Riverside Avenue from Slover Avenue to Jurupa Avenue

3.3 TRUCK ROUTES

Exhibit 3-4 shows the City of Rialto truck routes. As shown, Riverside Avenue and Santa Ana Avenue are identified as truck routes. These truck routes have been utilized to route truck traffic associated with the proposed Project and future cumulative development projects for the purposes of this TA. An Interim Urgency Ordinance (No. 1673) was adopted by the City on December 13, 2022, which establishes a moratorium to prohibit truck traffic on all other streets within the City of Rialto except as otherwise noted on Exhibit 3-5 or as provided by law. Specifically, Exhibit 3-5 identifies the allowable truck routes and the previous truck routes that have been removed by the Interim Urgency Ordinance.

3.4 BICYCLE, EQUESTRIAN, & PEDESTRIAN FACILITIES

Exhibit 3-6 illustrates the City of Rialto existing and future planned bicycle facilities per the City's Bicycle and Pedestrian Master Plan (2016), which an on-street Class II (striped) bike path along Riverside Avenue and Santa Ana Avenue within the study area. Existing pedestrian facilities within the study area are shown on Exhibit 3-7. Field observations and traffic counts conducted in February 2022 indicate moderate pedestrian and bicycle activity within the study area (when the traffic counts were conducted).

3.5 TRANSIT SERVICE

The City of Rialto is served by Omnitrans, a public transit agency serving various jurisdictions within San Bernardino County. Based on a review of the transit routes within the vicinity of the Project, there are currently no routes that operate within the study area. Transit service is reviewed and updated by Omnitrans periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the Project Applicant work in conjunction with Omnitrans to potentially provide bus service to the site.

EXHIBIT 3-4: CITY OF RIALTO TRUCK ROUTES

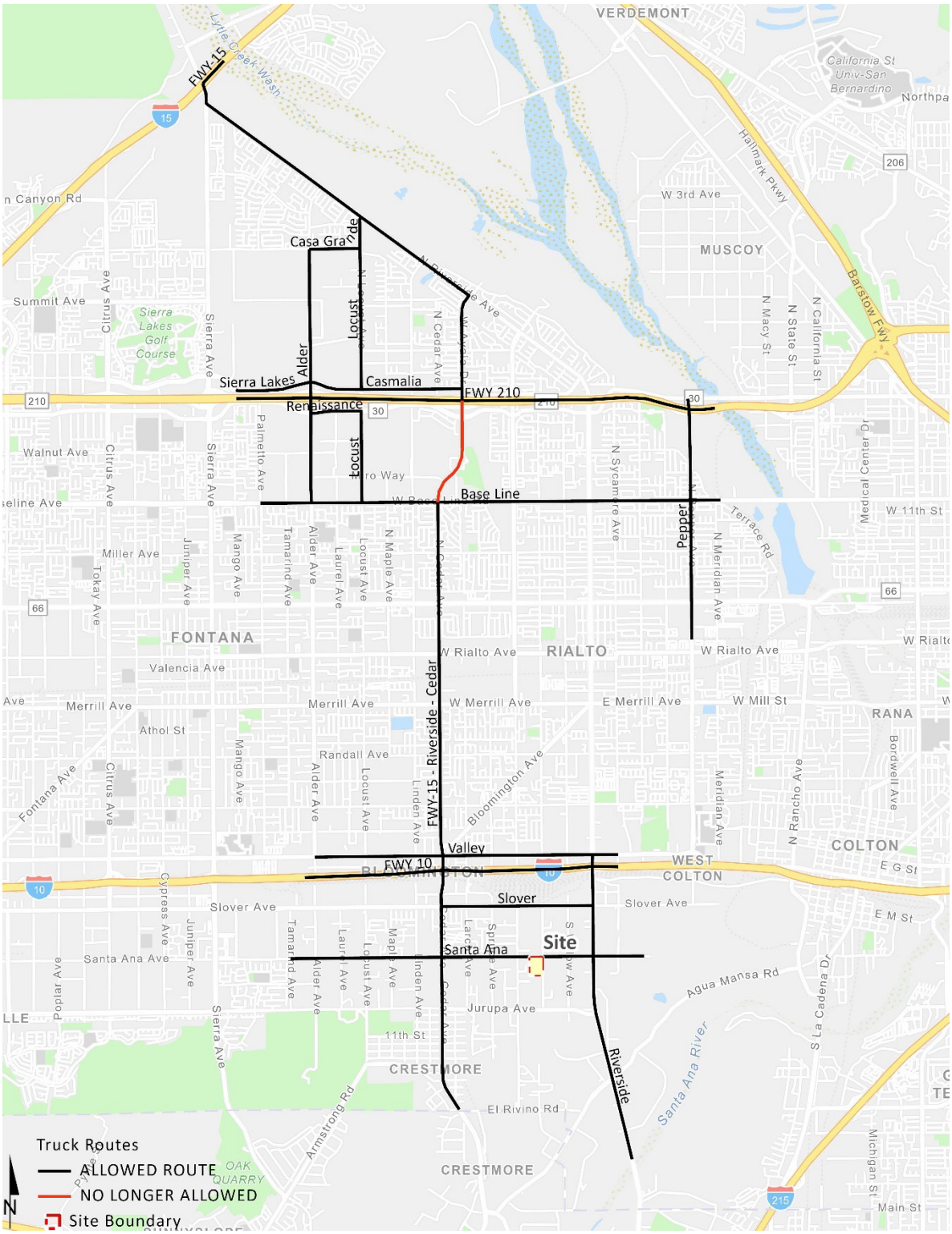


EXHIBIT 3-5: CITY OF RIALTO DECOMMISSIONED TRUCK ROUTES

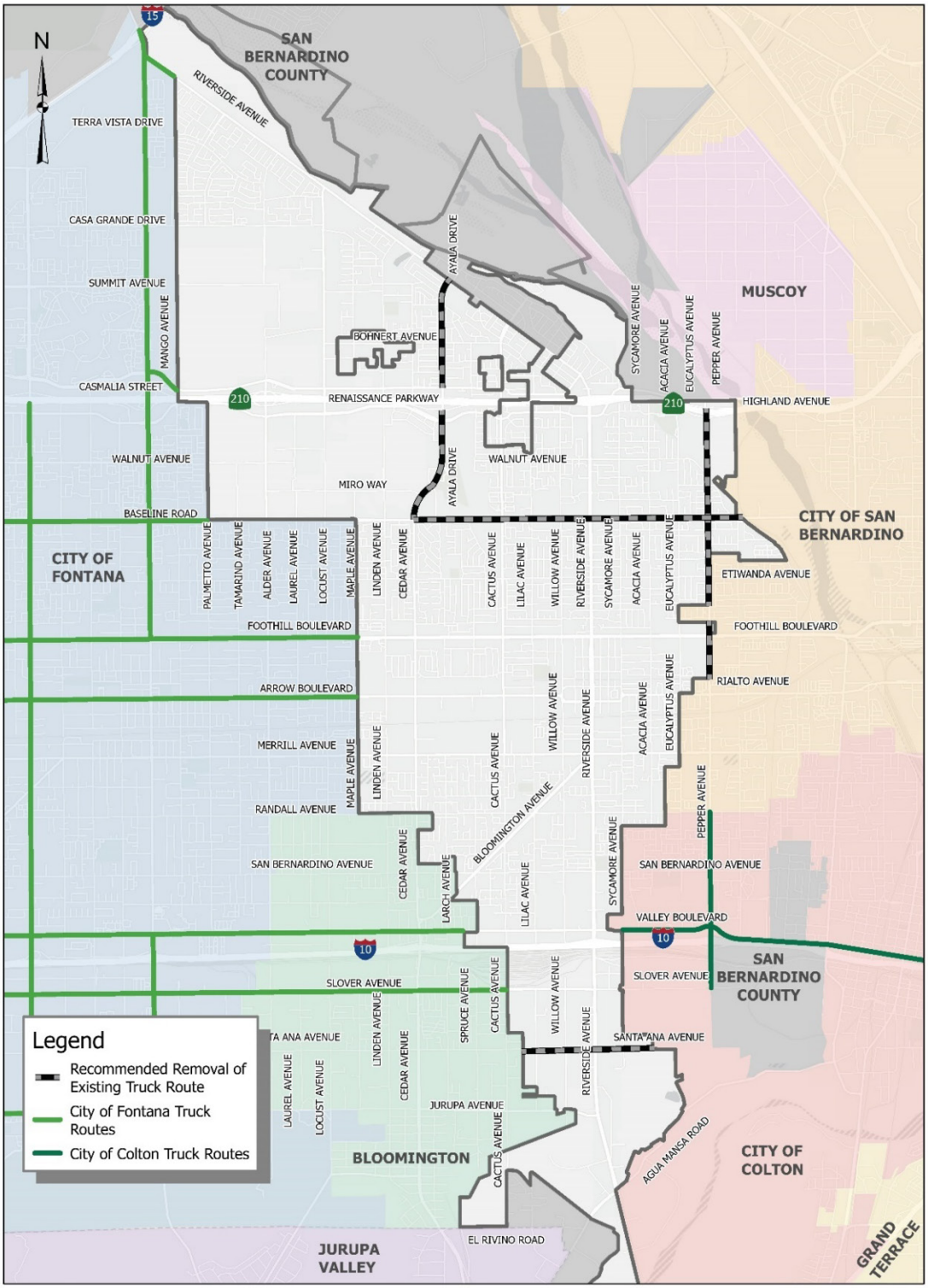


EXHIBIT 3-6: CITY OF RIALTO BICYCLE FACILITIES

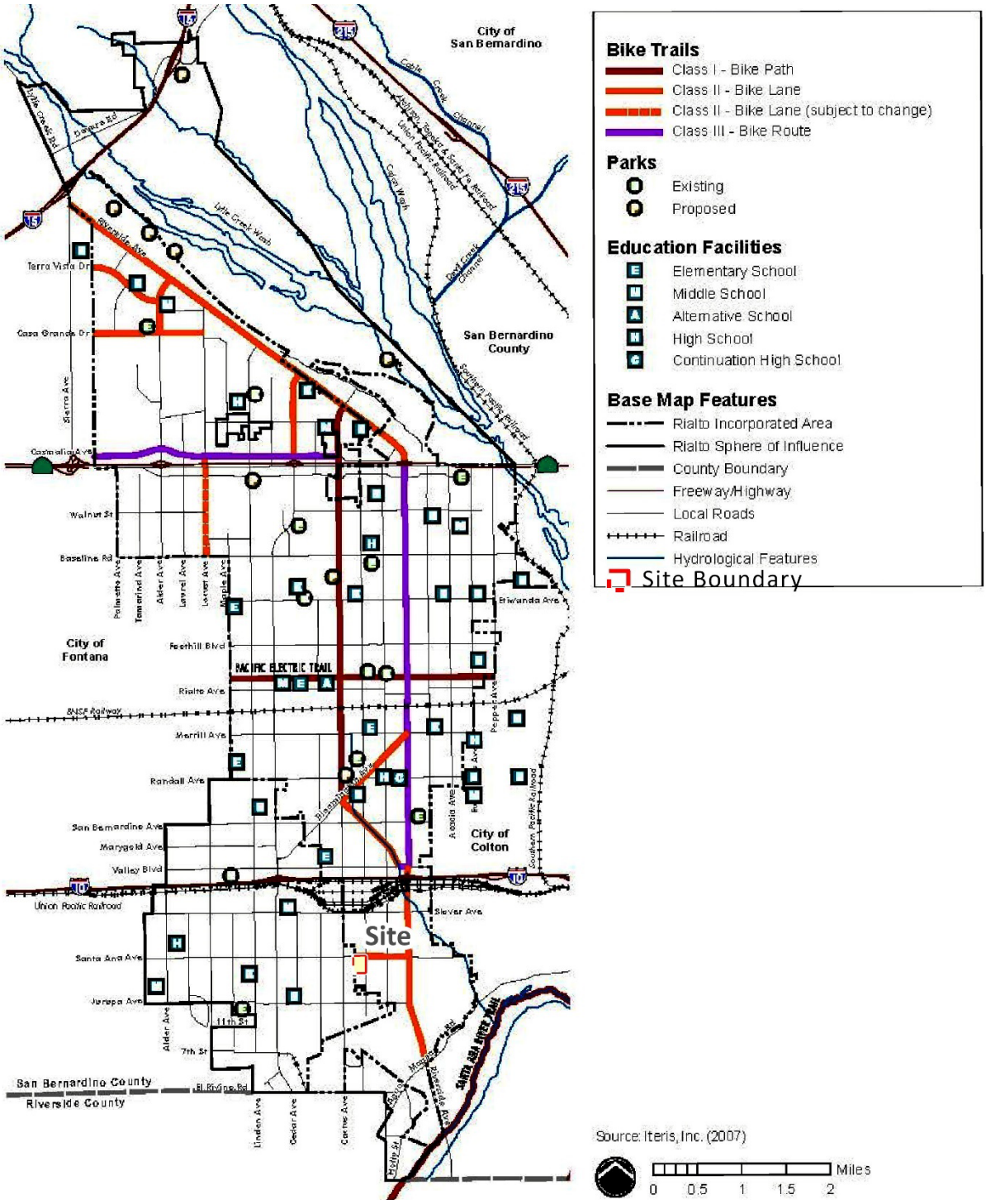
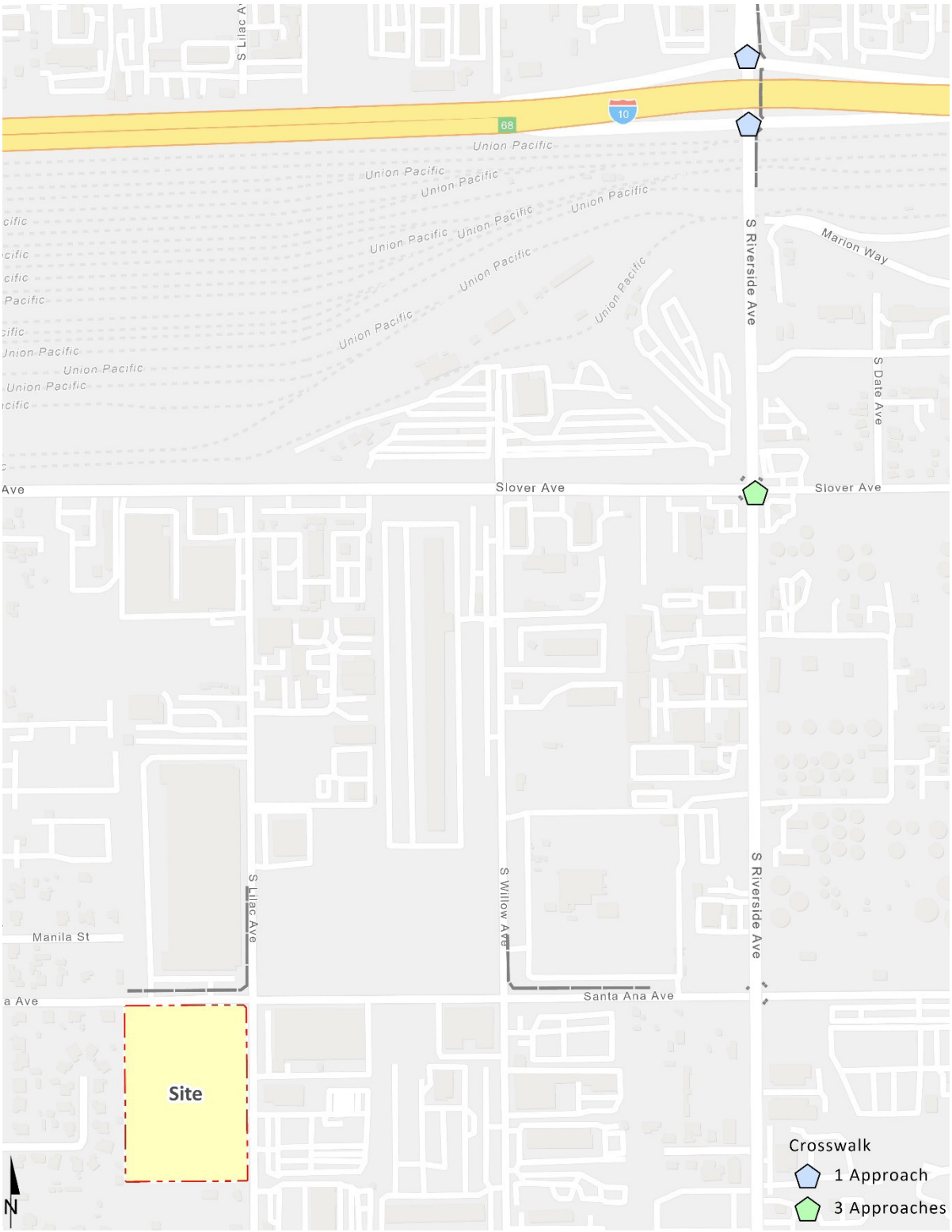


EXHIBIT 3-7: EXISTING PEDESTRIAN FACILITIES



3.6 EXISTING (2022) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in February 2022. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The traffic counts include the following vehicle classifications: Passenger Cars, 2-Axle Trucks, 3-Axle Trucks, and 4 or More Axle Trucks. To represent the effects large trucks, buses and recreational vehicles have on traffic flow; all trucks were converted into PCE. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is much longer than for passenger cars and varies depending on the type of vehicle and number of axles. For the purpose of this analysis, a PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement. These factors are consistent with the values recommended for use in the CMP and the City's Traffic Study Guidelines. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1.

Existing weekday ADT volumes are shown on Exhibit 3-8. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

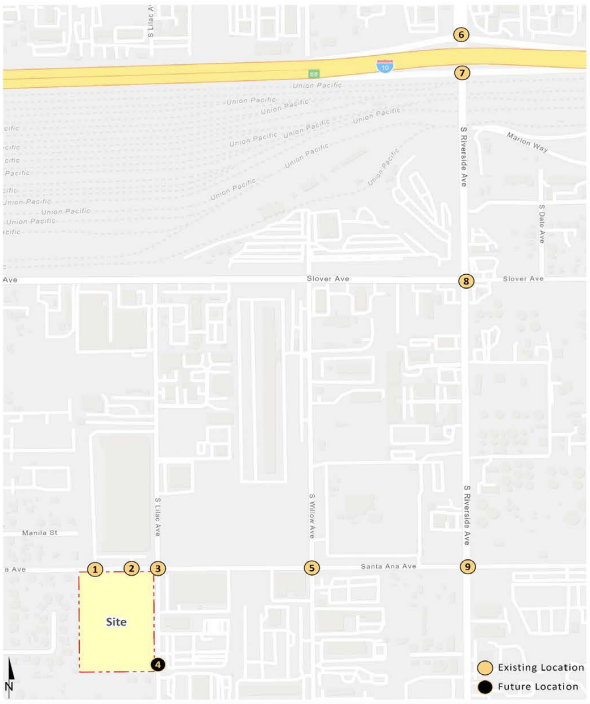
Weekday PM Peak Hour (Approach Volume + Exit Volume) x 11.0 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 9.1 percent. As such, the above equation utilizing a factor of 11.0 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of 4.98 percent (i.e., 1/0.09 = 11.0) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday peak hour intersection volumes are also shown on Exhibit 3-8.

3.7 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized on Table 3-1, which indicates that all existing study area intersections are currently operating at acceptable LOS during the peak hours. The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

EXHIBIT 3-8: EXISTING (2022) TRAFFIC VOLUMES



1 Driveway 1 & Santa Ana Av.

100 | 3,400
- 0(5) ↲ | 3(1) ↳ | 6(2) ↰
- 69(96) ←
- 2(0) ↦
- 81(139) →

3,450

2 Driveway 2 & Santa Ana Av.

150 | 3,450
- 0(2) ↲ | 2(7) ↳ | 5(0) ↰
- 75(96) ←
- 3(1) ↦
- 81(139) →

3,400

3 Lilac Av. & Santa Ana Av.

1,550 | 3,300
- 18(13) ↲ | 39(20) ↓ | 4(11) ↳ | 14(13) ↰
- 55(73) ←
- 15(6) ↰
- 5(16) ↦
- 68(122) →
- 10(8) ↴
- 7(10) ↰ | 20(35) ↑ | 9(6) ↱

3,450 | 1,450

4 Lilac Av. & Driveway 3

1,200
- 64(34) ↓
- 36(51) ↑

1,200

5 Willow Av. & Santa Ana Av.

1,700 | 3,700
- 12(11) ↲ | 24(34) ↓ | 5(6) ↳ | 12(22) ↰
- 64(77) ←
- 29(14) ↰
- 6(11) ↦
- 65(112) →
- 10(16) ↴
- 8(4) ↰ | 18(36) ↑ | 16(26) ↱

3,300 | 1,850

6 Riverside Av. & I-10 WB Ramps

42,900 | 10,850
- 599(381) ↲ | 987(863) ↓ | 330(468) ↰
- 390(290) ↰
- 143(240) ↰ | 646(1280) ↑

8,900 | 38,300

7 Riverside Av. & I-10 EB Ramps

38,300 | 11,800
- 944(815) ↓ | 433(338) ↳
- 267(520) ↦
- 3(0) →
- 328(329) ↴
- 522(1000) ↑ | 282(486) ↱

12,150 | 37,700

8 Riverside Av. & Slover Av.

37,700 | 3,400
- 338(257) ↲ | 919(873) ↓ | 15(14) ↳ | 29(74) ↰
- 14(12) ←
- 13(19) ↰
- 195(325) ↦
- 28(116) →
- 32(94) ↴
- 42(29) ↰ | 580(1087) ↑ | 17(3) ↱

11,950 | 30,150

9 Riverside Av. & Santa Ana Av.

28,750 | 2,400
- 66(46) ↲ | 814(891) ↓ | 32(28) ↳ | 27(60) ↰
- 4(14) ←
- 22(34) ↰
- 59(84) ↦
- 1(11) →
- 26(49) ↴
- 35(53) ↰ | 543(902) ↑ | 27(19) ↱

3,200 | 27,900

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2022) CONDITIONS

#	Intersection	Traffic Control[2]	Delay[1] (secs.) AM	Delay[1] (secs.) PM	Level of Service AM	Level of Service PM
1	Driveway 1 & Santa Ana Av.	CSS	9.9	9.3	A	A
2	Driveway 2 & Santa Ana Av.	CSS	10.0	9.9	B	A
3	Lilac Av. & Santa Ana Av.	CSS	11.4	11.8	B	A
4	Lilac Av. & Driveway 3	--	Future Intersection			
5	Willow Av. & Santa Ana Av.	AWS	8.5	8.7	A	A
6	Riverside Av. & I-10 WB Ramps	TS	17.2	14.3	B	B
7	Riverside Av. & I-10 EB Ramps	TS	18.9	23.6	B	C
8	Riverside Av. & Slover Av.	TS	30.0	29.6	C	C
9	Riverside Av. & Santa Ana Av.	TS	13.6	14.3	B	B

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

3.8 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. There are no unsignalized study area intersections that currently warrant a traffic signal for Existing traffic conditions. Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

3.9 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the study area intersections along the I-10 Freeway to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-10 Freeway mainlines. Queuing analysis findings are presented on Table 3-2. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 3-2, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. Worksheets for Existing traffic conditions off-ramp queuing analysis are provided in Appendix 3.4.

TABLE 3-2: FREEWAY OFF-RAMP QUEUING SUMMARY FOR EXISTING (2022) CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak	PM Peak	AM	PM
Riverside Av. & I-10 WB Ramps (#5)	WBL	450	260	250	Yes	Yes
	WBL/T/R	1,200	207	195	Yes	Yes
	WBR	330	113	181	Yes	Yes
Riverside Av. & I-10 EB Ramps (#6)	EBL	1,350	254	356 [2]	Yes	Yes
	EBL/T/R	1,350	214	273 [2]	Yes	Yes
	EBR	325	178	218	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

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4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. The Project is proposed to consist of a single 301,000 square foot warehouse building. The Project is anticipated to be constructed in one phase by the year 2024. For the purpose of this analysis, the following driveways will be assumed to provide access to the Project site (all driveways will allow for full access):

- Driveway 1 on Santa Ana Avenue – passenger cars only
- Driveway 2 on Santa Ana Avenue – passenger cars & trucks
- Driveway 3 on Lilac Avenue – passenger cars & trucks

Regional access to the Project site is available from the I-10 Freeway via the Riverside Avenue interchange.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. In order to develop the traffic characteristics of the approved Project, trip-generation statistics published in the ITE Trip Generation Manual (11th Edition, 2021) were used to estimate the trip generation rates as shown in Table 4-1. (3)

TABLE 4-1: PROJECT TRIP GENERATION RATES

Land Use[1]	ITE LU Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicle Trip Generation Rates:									
Warehousing[3]	150	TSF	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars (60.0%)			0.095	0.007	0.102	0.013	0.095	0.108	1.026
2-Axle Trucks (0.8%)			0.001	0.000	0.001	0.001	0.000	0.001	0.014
3-Axle Trucks (11.2%)			0.010	0.009	0.019	0.010	0.010	0.020	0.192
4+-Axle Trucks (28.0%)			0.025	0.023	0.048	0.026	0.024	0.050	0.479
PCE Trip Generation Rates:[4]									
Warehousing[3]	150	TSF	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.095	0.007	0.102	0.013	0.095	0.108	1.026
2-Axle Trucks (PCE = 1.5)			0.002	0.001	0.002	0.002	0.001	0.002	0.021
3-Axle Trucks (PCE = 2.0)			0.020	0.018	0.038	0.020	0.020	0.040	0.383
4+-Axle Trucks (PCE = 2.0)			0.075	0.068	0.143	0.078	0.073	0.151	1.436

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

[3] Vehicle and Truck Mix Source: City of Rialto Public Works Department Traffic Impact Analysis Report Guidelines and Requirements (2013).

[4] PCE rates are per City of Rialto Public Works Department Traffic Impact Analysis Report Guidelines and Requirements (2013).

Trip generation is summarized on Table 4-2. As shown in Table 4-2, the Project would generate 520 two-way trips per day, with 52 trips generated during the AM peak hour and 55 trips generated during the PM peak hour (in actual vehicles).

TABLE 4-2: PROJECT TRIP GENERATION SUMMARY

			AM Peak Hour			PM Peak Hour			
Project	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
Actual Vehicles:									
Santa Ana & Lilac Warehouse	301.000	TSF							
Passenger Cars:			29	2	31	4	28	33	310
2-Axle Trucks:			0	0	0	0	0	0	6
3-Axle Trucks:			3	3	6	3	3	7	58
4+-Axle Trucks:			8	7	15	8	7	15	146
Total Trucks:			11	10	21	11	11	22	210
Total Trips (Actual Vehicles)[2]			**39**	**12**	**52**	**15**	**39**	**55**	**520**
Passenger Car Equivalent (PCE):									
Santa Ana & Lilac Warehouse	301.000	TSF							
Passenger Cars:			29	2	31	4	28	33	310
2-Axle Trucks (PCE = 1.5):			0	0	1	0	0	1	10
3-Axle Trucks (PCE = 2.0):			6	5	11	6	6	12	116
4+-Axle Trucks (PCE = 3.0):			23	20	43	23	22	46	438
Total Trucks (PCE):			29	26	55	30	28	58	564
Total Trips (PCE)[2]			**58**	**28**	**86**	**34**	**57**	**91**	**874**

[1] TSF = Thousand Square Feet

[2] Total Trips = Passenger Cars + Truck Trips

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. In order to comply with the City's truck moratorium, the Project truck distribution utilizes Santa Ana Avenue to the east to Riverside Avenue and then north to the I-10 Freeway. Exhibit 4-1 and Exhibit 4-2 illustrate the truck and passenger car trip distribution patterns for the Project, respectively.

4.3 MODAL SPLIT

The potential for Project trips (non-truck) to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

EXHIBIT 4-1: PROJECT (TRUCK) TRIP DISTRIBUTION

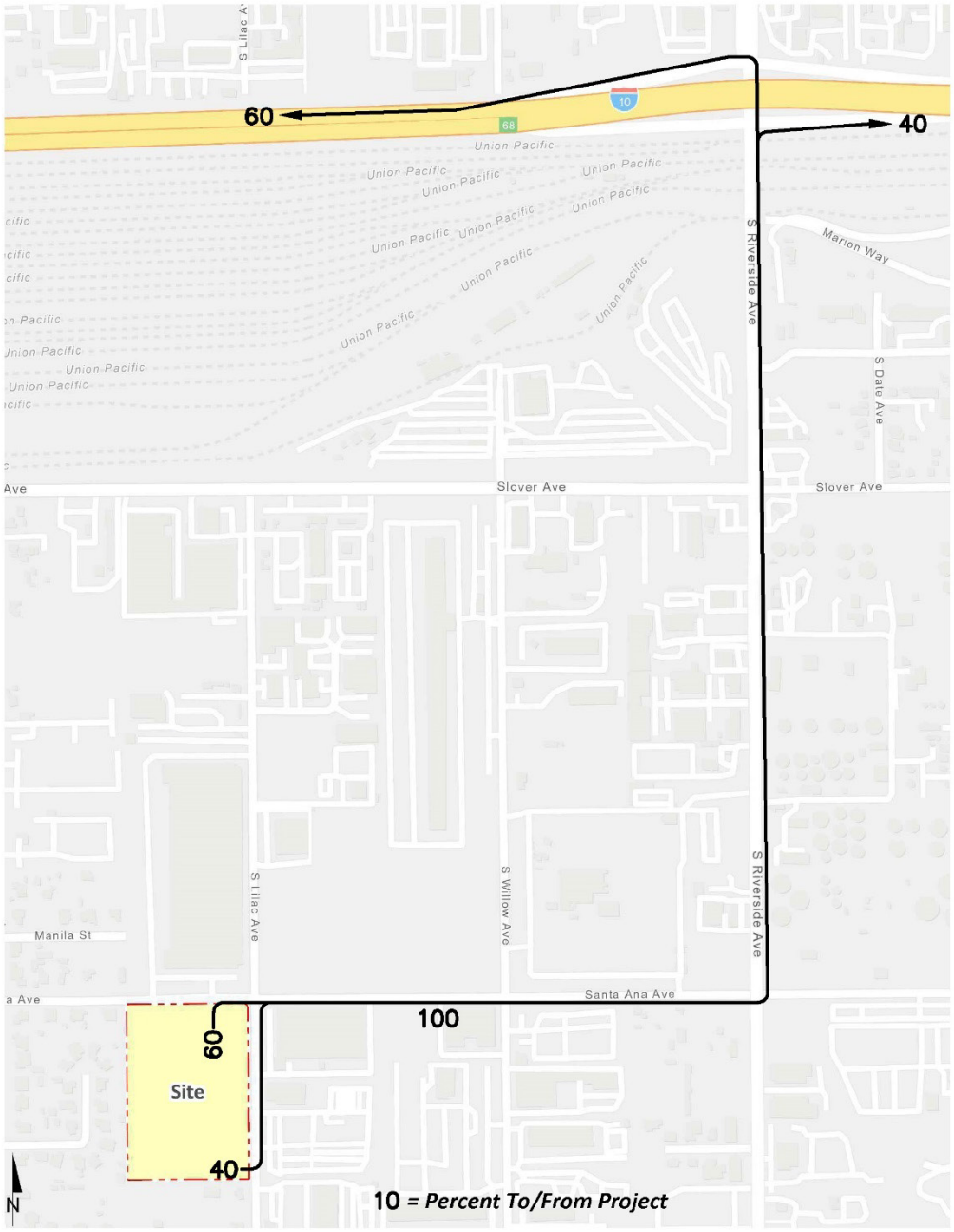
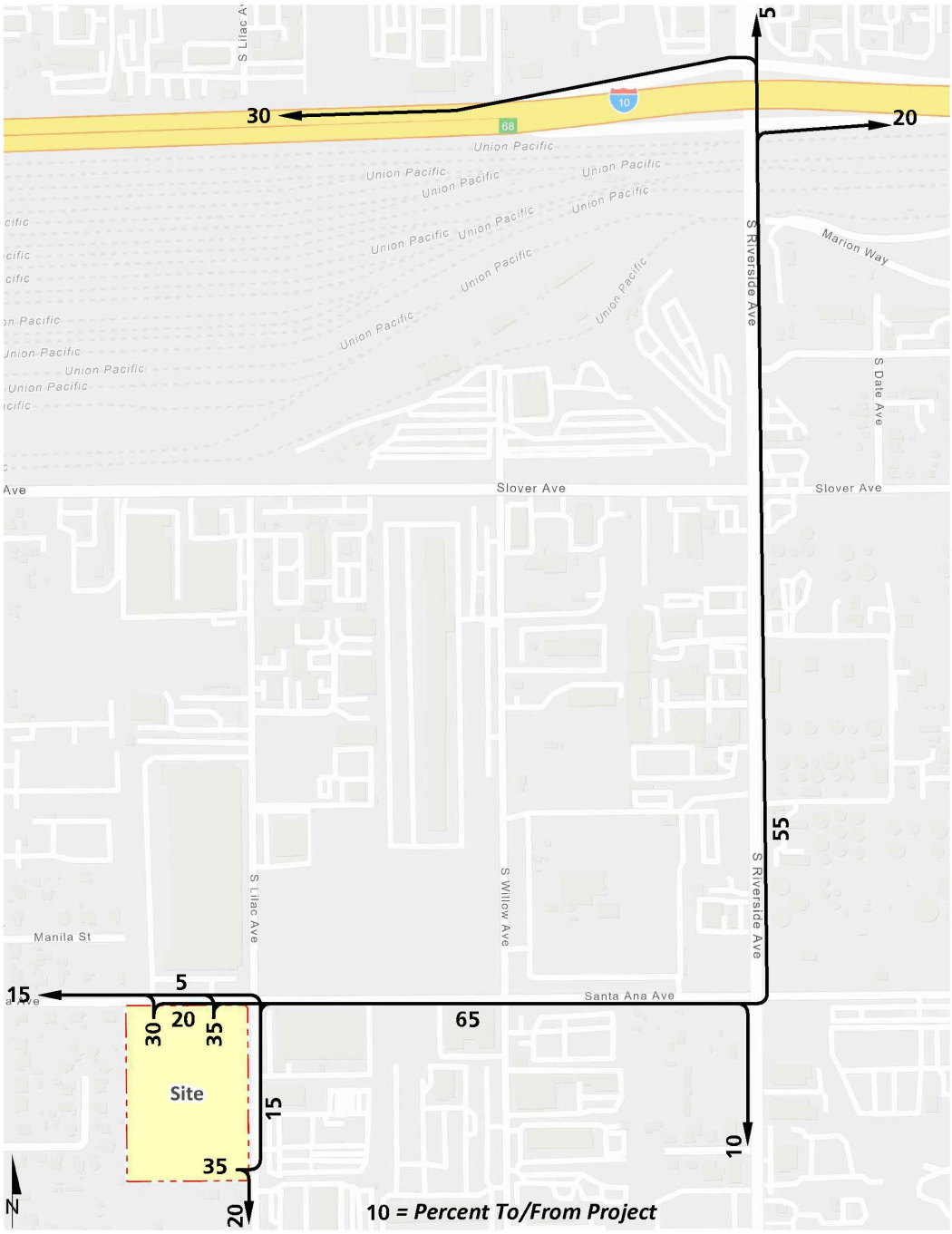


EXHIBIT 4-2: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



4.4 PROJECT TRIP ASSIGNMENT

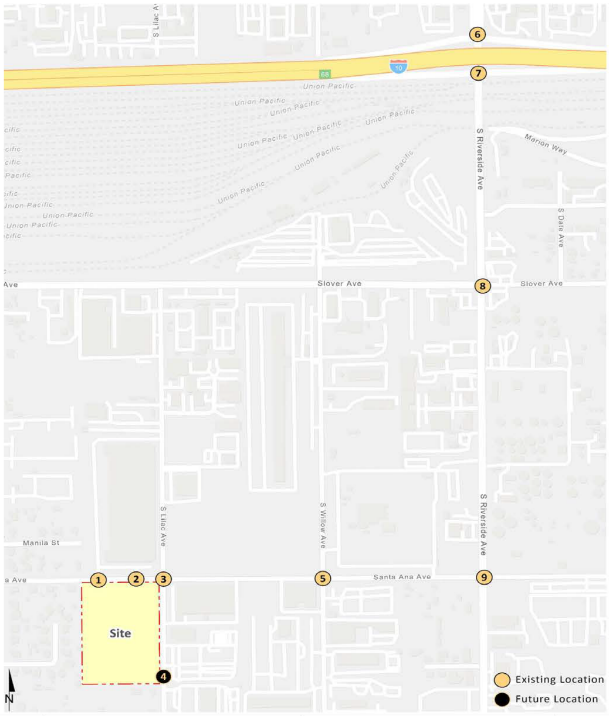
The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project weekday ADT and weekday peak hour intersection turning movement volumes are shown on Exhibit 4-3.

4.5 BACKGROUND TRAFFIC

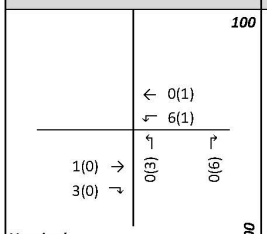
Future year traffic forecasts have been based upon background (ambient) growth at 2% per year for 2024 traffic conditions. The total ambient growth is 4.04% for 2024 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in conjunction with traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies. Opening Year Cumulative (2024) traffic volumes are provided in Section 4.6 of this report. The traffic generated by the proposed Project was then manually added to the base volume to determine EAP/EAPC forecasts. The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- EAP (2024)
    - Existing (2022) volumes
    - Ambient growth traffic (4.04% over 2 years)
    - Project Traffic
- EAPC (2024)
    - Existing (2022) volumes
    - Ambient growth traffic (4.04% over 2 years)
    - Project Traffic
    - Cumulative Development traffic

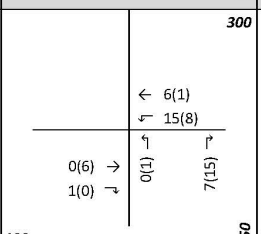
EXHIBIT 4-3: PROJECT ONLY TRAFFIC VOLUMES



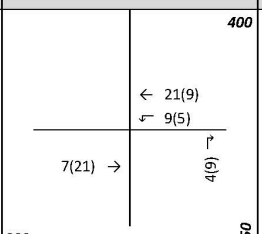
1 Driveway 1 & Santa Ana Av.



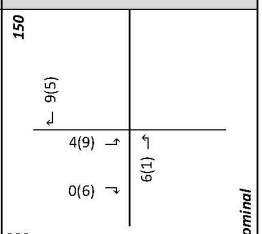
2 Driveway 2 & Santa Ana Av.



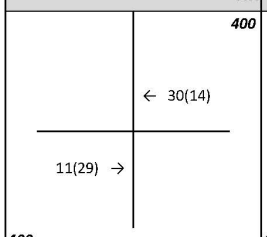
3 Lilac Av. & Santa Ana Av.



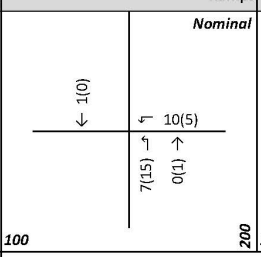
4 Lilac Av. & Driveway 3



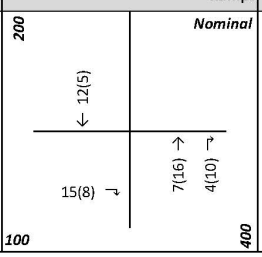
5 Willow Av. & Santa Ana Av.



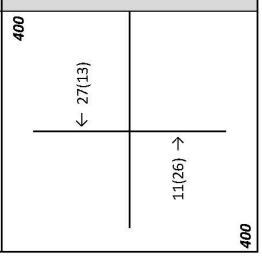
6 Riverside Av. & I-10 WB Ramps



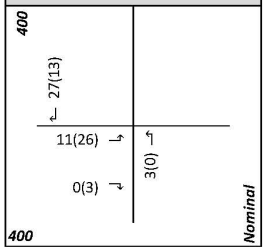
7 Riverside Av. & I-10 EB Ramps



8 Riverside Av. & Slover Av.



9 Riverside Av. & Santa Ana Av.



##(##) AM(PM) Peak Hour Intersection Volumes

***Average Daily Trips***

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Rialto. The cumulative projects listed are those that would generate traffic and would contribute traffic to study area intersections. Cumulative projects from the neighboring jurisdictions of Fontana and County of San Bernardino have also been included.

Exhibit 4-4 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown on Table 4-3. If applicable, the traffic generated by individual cumulative projects was manually added to the Opening Year Cumulative forecasts to ensure that traffic generated by the listed cumulative development projects on Table 4-3 are reflected as part of the background traffic. In an effort to conduct a conservative analysis, the cumulative projects are added in conjunction with the ambient growth identified in Section 4.5 *Background Traffic*. Cumulative ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-5.

4.7 NEAR-TERM CONDITIONS

The "buildup" approach has been utilized which combines existing traffic counts with a background ambient growth factor to forecast the EAP (2024) and EAPC (2024) traffic conditions. An ambient growth factor of 4.04% accounts for background (area-wide) traffic increases that occur over time up to the year 2024 from the year 2022 (2.0% per year, compounded over a 2-year period). Project traffic is added to assess EAP (2024) and EAPC (2024) traffic conditions, respectively. Traffic volumes generated by cumulative development projects are included to assess the EAPC (2024) traffic conditions. The 2024 roadway networks are similar to the existing conditions roadway network with the exception of future roadways and intersections proposed to be developed by the Project.

EXHIBIT 4-4: CUMULATIVE DEVELOPMENT LOCATION MAP

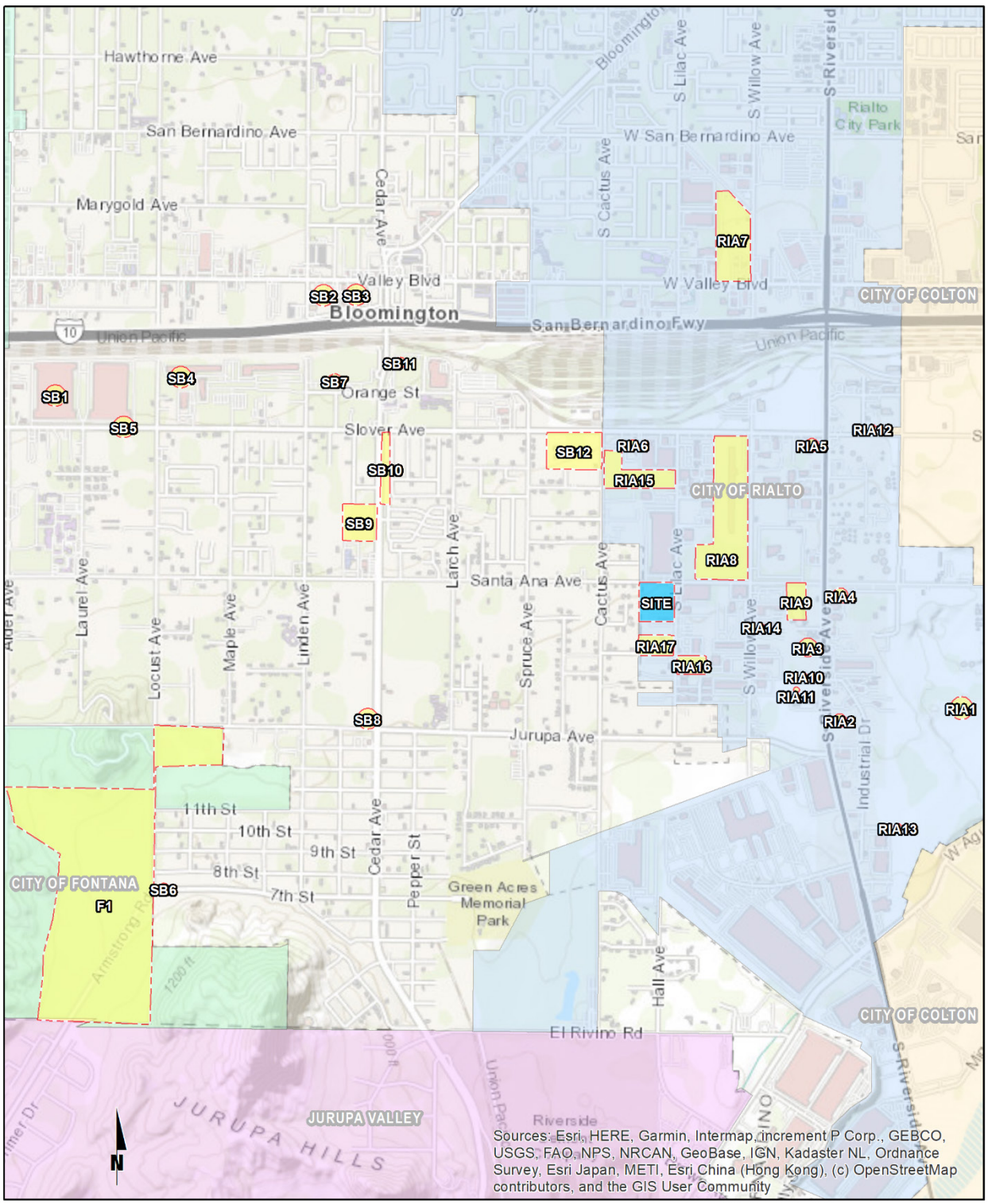


EXHIBIT 4-5: CUMULATIVE ONLY TRAFFIC VOLUMES



1 Driveway 1 & Santa Ana Av.

Nominal

← 1(4)

4(1) →

Nominal

2 Driveway 2 & Santa Ana Av.

Nominal

← 37(39)

← 1(4)

4(1) →

43(34) →

Nominal

3 Lilac Av. & Santa Ana Av.

750 | 300

← 37(39)

↰ 22(8)

4(1) ↲

1(4) ↰ | 43(34) → | 7(22) ↱

Nominal | 1,100

4 Lilac Av. & Driveway 3

1,100

← 63(48)

51(60) →

1,100

5 Willow Av. & Santa Ana Av.

800 | 300

19(36) ↙

← 22(8)

7(22) →

43(16) ↗

300 | 800

6 Riverside Av. & I-10 WB Ramps

7,550 | 3,100

49(162) ↲ | 161(248) ← | 0(30) ↳

↱ 134(44)

↰ 285(191)

173(282) ↰ | 297(189) ↑

3,450 | 9,350

7 Riverside Av. & I-10 EB Ramps

9,350 | 2,900

417(308) ← | 30(130) ↳

183(65) ↳

297(173) ↲

286(406) → | 196(277) ↱

3,450 | 11,600

8 Riverside Av. & Slover Av.

11,600

← 714(481)

482(683) →

11,600

9 Riverside Av. & Santa Ana Av.

11,600

21(8) ↲ | 693(473) ↓

6(21) →

0(2) ↲

2(0) ↰ | 476(662) ↑

300 | 11,350

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

TABLE 4-3: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

ID	Project Name	Land Use	Quantity	Units[1]
City of Rialto:				
RIA1	South of Santa Ana Av., East of Riverside Av.	Warehouse	370.000	TSF
RIA2	SEC of Riverside Av. and Industrial Dr.	Trucking	3.580	AC
RIA3	NWC of Riverside Av. and Industrial Dr.	Truck Drop	3.360	AC
RIA4	SEC of Riverside Av. and Santa Ana Av.	Super Convenience Market/Gas Station	16	VFP
		Diesel Station	2	VFP
RIA5	SWC of Riverside Av. & Slover Av.	Fast Food w/ Drive-Thru	5.200	TSF
RIA6	Flyers Energy Addition	Warehouse	9.350	TSF
RIA7	Valley/Willow Warehouse	Warehousing	492.410	TSF
RIA8	Old Dominion Expansion	Parking Lot (407 spaces)	17.780	AC
RIA9	SC Fuels	Fuel Storage/Service	54.460	TSF
RIA10	Lynn Trucking	Truck Parking Yard	3.070	AC
		Car Wash/Repair	8.827	TSF
RIA11	Riverside Pallet Yard	Pallet Yard	3.580	AC
RIA12	Onyx Paving	Contractor's Yard	0.770	AC
RIA13	Angelus Black - Concrete Block	Manufacturing	178.475	TSF
RIA14	Bakery Addition	Bakery	14.000	TSF
RIA15	Lilac Avenue Warehouse	Truck Terminal	47.609	TSF
RIA16	Lilac Commerce Center	Warehouse	82.958	TSF
RIA17	2690 Lilac Av.	Warehouse	69.100	TSF
County of San Bernardino:				
SB1	NWC of Slover Av. and Locust Av.	Fast Food Restaurant With Drive-Thru	3.265	TSF
		Retail Store	7.200	TSF
		Warehouse	20.750	TSF
SB2	SEC of Linden Av. and Valley Bl.	Fast Food Restaurant	1.500	TSF
SB3	Valley Bl., West of Linden Av.	Office Building	0.250	AC
SB4	Linden Av., north of Slover Av.	Tire Store	3.000	TSF
SB5	Slover Av. between Locust Av. and Laurel Av.	High-Cube Warehouse	344.000	TSF
SB6	Locust Av. and 7th St.	Single Family Residential	198	DU
SB7	NEC and NWC of Cedar Av. and Orange St.	Warehouse	395.000	TSF
SB8	NWC of Cedar Av. and Jurupa Av.	High-Cube Warehouse	677.000	TSF
SB9	Cedar Truck Yard	Truck Storage	8.940	AC
SB10	Cedar / Slover Retail	Super Convenience Market/Gas Station	12	VFP
		Automated Car Wash	1.000	Tunnel
		Fast Food Restaurant With Drive-Thru	9.907	TSF
SB11	Cedar Avenue Technology Center	Warehouse	184.770	TSF
SB12	Cactus and Slover Warehouse	Warehouse	257.855	TSF
City of Fontana:				
F1	West Valley Logistics Center	High-Cube Transload & Short-Term Storage	3183.100	TSF
		Warehouse	290.590	TSF

[1] DU = Dwelling Units; TSF = Thousand Square Feet; AC = Acres; VFP = Vehicle Fueling Positions

5 EAP (2024) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Ambient Growth plus Project (EAP) conditions and the resulting intersection operations, traffic signal warrant, and freeway off-ramp queuing analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAP (2024) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAP (2024) conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

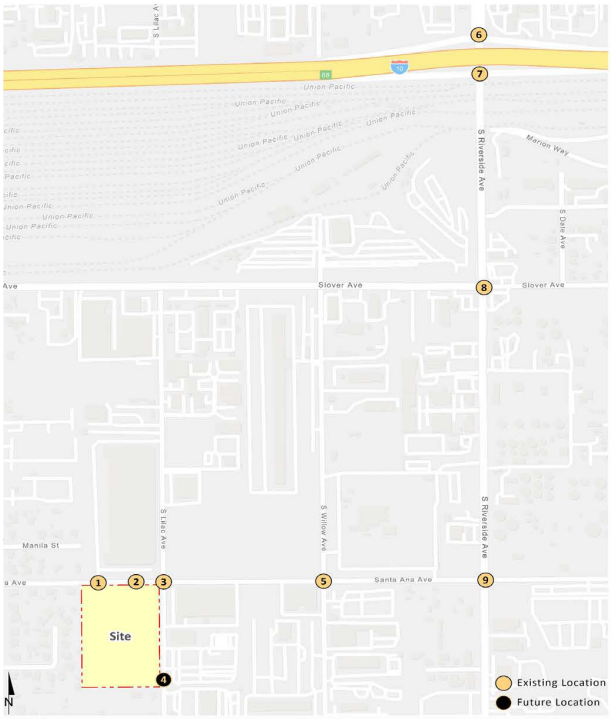
5.2 EAP TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 4.04% and the addition of Project traffic. The weekday ADT and weekday peak hour intersection turning movement volumes which can be expected for EAP (2024) traffic conditions are shown on Exhibit 5-1.

5.3 INTERSECTION OPERATIONS ANALYSIS

EAP (2024) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized on Table 5-1 for EAP (2024) traffic conditions, which indicate that all of the study area intersections are anticipated to continue to operate at an acceptable LOS under EAP (2024) traffic conditions, in addition to the intersections previously identified for Existing traffic conditions. The intersection operations analysis worksheets for EAP (2024) traffic conditions are included in Appendix 5.1 of this TA.

EXHIBIT 5-1: EAP (2024) TRAFFIC VOLUMES



1 Driveway 1 & Santa Ana Av.

100 | 3,650
3,600 | 100

	0(5) ↲	3(1) ↳
2(0) ↳		↱ 6(2)
85(145) →		← 72(101)
3(0) ↲	0(3) ↰	↰ 6(1) 0(6) ↱

2 Driveway 2 & Santa Ana Av.

150 | 3,900
3,650 | 250

	0(2) ↲	2(7) ↳
3(1) ↳		↱ 5(0)
84(151) →		← 84(101)
1(0) ↲	0(1) ↰	↰ 15(8) 7(15) ↱

3 Lilac Av. & Santa Ana Av.

1,600 | 3,850
3,900 | 1,650

	19(14) ↲	41(21) ↓	4(11) ↳
5(17) ↳			↱ 15(14)
78(148) →			← 78(85)
10(8) ↲		7(10) ↰	↑ 21(36) ↱ 13(15)

4 Lilac Av. & Driveway 3

1,400
200 | 1,350

	9(5) ↲	67(35) ↓
4(9) ↳		
0(6) ↲		6(1) ↰ 37(53) ↑

5 Willow Av. & Santa Ana Av.

1,800 | 4,250
3,850 | 1,950

	12(11) ↲	25(35) ↓	5(6) ↳
6(11) ↳			↱ 12(23)
79(146) →			← 97(94)
10(17) ↲		8(4) ↰	↑ 19(37) ↱ 17(27) 30(15)

6 Riverside Av. & I-10 WB Ramps

44,650 | 11,400
9,350 | 40,050

	623(396) ↲	1028(898) ↓
		↱ 343(487)
		↰ 416(307)
156(265) ↰	↑ 672(1333)	

7 Riverside Av. & I-10 EB Ramps

40,050 | 12,350
12,750 | 39,600

	994(853) ↓	450(352) ↳
278(541) ↳		
3(0) →		
356(350) ↲		↑ 550(1056) ↱ 297(516)

8 Riverside Av. & Slover Av.

39,600 | 3,550
12,400 | 31,750

	352(267) ↲	983(921) ↓	16(15) ↳
203(338) ↳			↱ 30(77)
29(121) →			← 15(12)
33(98) ↲		44(30) ↰	↑ 614(1157) ↱ 18(3) 14(20)

9 Riverside Av. & Santa Ana Av.

30,250 | 2,500
3,750 | 29,100

	96(61) ↲	847(927) ↓	33(29) ↳
72(113) ↳			↱ 28(62)
1(11) →			← 4(15)
27(54) ↲		39(55) ↰	↑ 565(938) ↱ 28(20) 23(35)

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

TABLE 5-1: INTERSECTION ANALYSIS FOR EAP CONDITIONS

#	Intersection	Traffic Control[1]	Existing (2022) Delay[2] (secs.) AM	Existing (2022) Delay[2] (secs.) PM	Existing (2022) Level of Service AM	Existing (2022) Level of Service PM	EAP (2024) Delay[2] (secs.) AM	EAP (2024) Delay[2] (secs.) PM	EAP (2024) Level of Service AM	EAP (2024) Level of Service PM
1	Driveway 1 & Santa Ana Av.	CSS	9.9	9.3	A	A	10.4	9.7	B	A
2	Driveway 2 & Santa Ana Av.	CSS	10.0	9.9	B	A	11.1	10.9	B	B
3	Lilac Av. & Santa Ana Av.	CSS	11.4	11.8	B	A	12.3	12.7	B	B
4	Lilac Av. & Driveway 3	**CSS**	Future Intersection				9.5	9.1	A	A
5	Willow Av. & Santa Ana Av.	AWS	8.5	8.7	A	A	9.1	9.3	A	A
6	Riverside Av. & I-10 WB Ramps	TS	17.2	14.3	B	B	18.8	15.2	B	B
7	Riverside Av. & I-10 EB Ramps	TS	18.9	23.6	B	C	21.1	26.4	C	C
8	Riverside Av. & Slover Av.	TS	30.0	29.6	C	C	36.6	35.1	D	D
9	Riverside Av. & Santa Ana Av.	TS	13.6	14.3	B	B	14.2	15.0	B	B

[1] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
Deficient occurs (improvements needed) when the addition of project related trips causes either peak hour LOS to degrade from acceptable (LOS A through D) to unacceptable levels (LOS E/F) or the peak hour delay to increase as follows:
- LOS A/B = By 10.0 seconds
- LOS C = By 8.0 seconds
- LOS D = By 5.0 seconds
- LOS E = By 2.0 seconds
- LOS F = By 1.0 seconds

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for EAP (2024) traffic conditions are based on the peak hour volumes or planning level ADT volume-based traffic signal warrants. No study area intersections are anticipated to meet either peak hour volume or ADT volume-based warrants with the addition of Project traffic (see Appendix 5.2).

5.5 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for EAP (2024) are presented on Table 5-2. As shown on Table 5-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic. Worksheets for EAP (2024) traffic conditions off-ramp queuing analysis are provided in Appendix 5.3.

TABLE 5-2: FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAP (2024) CONDITIONS

Intersection	Movement	Stacking Distance (Feet)	95th Percentile Queue (Feet) AM Peak Hour	95th Percentile Queue (Feet) PM Peak Hour	Acceptable? [1] AM	Acceptable? [1] PM
Riverside Av. & I-10 WB Ramps (#5)	WBL	450	275	266	Yes	Yes
	WBL/T/R	1,200	228	213	Yes	Yes
	WBR	330	136	190	Yes	Yes
Riverside Av. & I-10 EB Ramps (#6)	EBL	1,350	266	386 [2]	Yes	Yes
	EBL/T/R	1,350	245	319 [2]	Yes	Yes
	EBR	325	202	271 [2]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

5.6 PROJECT DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

The study area intersections are anticipated to operate at an acceptable LOS with the addition of Project traffic. As such, no additional improvements aside from those that are needed to facilitate site access have been recommended.

6 EAPC (2024) TRAFFIC CONDITIONS

This section discusses the methods used to develop Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2024) traffic forecasts, and the resulting intersection operations, traffic signal warrant, and freeway off-ramp queuing analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAPC (2024) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- If applicable, driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for EAPC conditions only.

6.2 EAPC (2024) TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 4.04% plus traffic from pending and approved but not yet constructed known development projects in the area in conjunction with the addition of Project traffic. The weekday ADT and weekday peak hour volumes which can be expected for EAPC (2024) traffic conditions are shown on Exhibit 6-1.

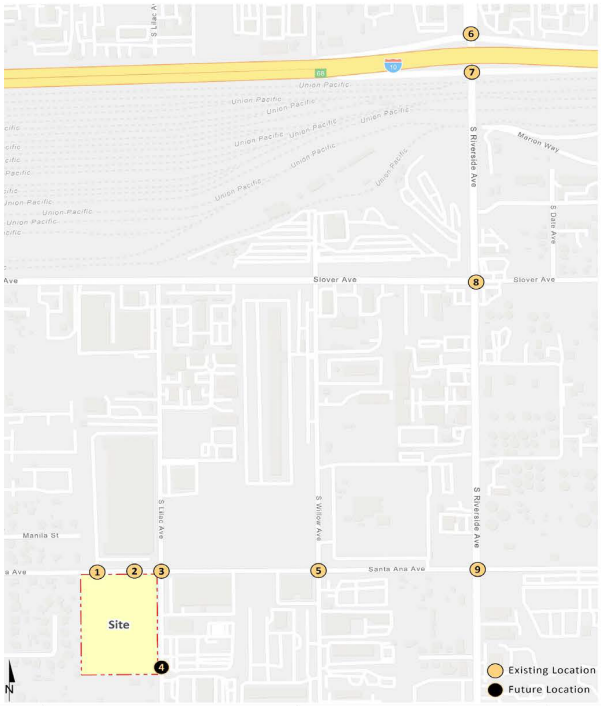
6.3 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under EAPC (2024) traffic conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown on Table 6-1, the following study area intersections are anticipated to operate at an unacceptable LOS under EAPC (2024) traffic conditions:

- Riverside Av. & I-10 EB Ramps (#7) – LOS E AM peak hour; LOS F PM peak hour
- Riverside Av. & Slover Av. (#8) – LOS F AM and PM peak hours

The intersection operations analysis worksheets for EAPC (2024) traffic conditions are included in Appendix 6.1 of this TA.

EXHIBIT 6-1: EAPC (2024) TRAFFIC VOLUMES



1 Driveway 1 & Santa Ana Av.

100 | 3,700
- 0(5) ↲ | 3(1) ↳
- 2(0) ↰ | 0(3) ↑ | 0(6) ↱
- 89(146) →
- 3(0) ↲
- 6(2) ↱
- 73(105) ←
- 6(1) ↰

3,700 | 100

2 Driveway 2 & Santa Ana Av.

150 | 3,950
- 0(2) ↲ | 37(39) ↓ | 2(7) ↳
- 3(1) ↰ | 0(1) ↑ | 43(34) ↑ | 7(15) ↱
- 88(152) →
- 1(0) ↲
- 5(0) ↱
- 85(105) ←
- 15(8) ↰

3,700 | 250

3 Lilac Av. & Santa Ana Av.

2,350 | 4,150
- 19(14) ↲ | 78(60) ↓ | 4(11) ↳
- 5(17) ↰ | 8(14) ↑ | 64(70) ↑ | 20(37) ↱
- 78(148) →
- 14(9) ↲
- 15(14) ↱
- 78(85) ←
- 47(19) ↰

3,950 | 2,750

4 Lilac Av. & Driveway 3

2,500
- 9(5) ↲ | 130(83) ↓
- 4(9) ↳ | ↰ | ↑
- 0(6) ↲ | 6(1) ↑ | 88(113) ↑

200 | 2,450

5 Willow Av. & Santa Ana Av.

2,600 | 4,550
- 12(11) ↲ | 44(71) ↓ | 5(6) ↳
- 6(11) ↰ | 8(4) ↑ | 62(53) ↑ | 17(27) ↱
- 86(168) →
- 10(17) ↲
- 12(23) ↱
- 119(102) ←
- 30(15) ↰

4,150 | 2,750

6 Riverside Av. & I-10 WB Ramps

52,150 | 14,500
- 672(558) ↲ | 1189(1146) ↓ | 0(30) ↳
- 329(547) ↑ | 969(1522) ↑
- 477(531) ↱
- 701(498) ↰

12,850 | 49,400

7 Riverside Av. & I-10 EB Ramps

49,400 | 15,250
- 1411(1161) ↓ | 480(482) ↳
- 461(606) ↰
- 3(0) →
- 653(523) ↲
- 836(1462) ↑ | 493(793) ↱

16,250 | 51,200

8 Riverside Av. & Slover Av.

51,200 | 3,550
- 352(267) ↲ | 1697(1402) ↓ | 16(15) ↳
- 203(338) ↰
- 29(121) →
- 33(98) ↲
- 44(30) ↑ | 1096(1840) ↑ | 18(3) ↱
- 30(77) ↱
- 15(12) ←
- 14(20) ↰

12,400 | 43,350

9 Riverside Av. & Santa Ana Av.

41,850 | 2,500
- 117(69) ↲ | 1540(1400) ↓ | 33(29) ↳
- 78(134) ↰
- 1(11) →
- 27(56) ↲
- 41(55) ↑ | 1041(1600) ↑ | 28(20) ↱
- 28(62) ↱
- 4(15) ←
- 23(35) ↰

4,050 | 40,400

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

TABLE 6-1: INTERSECTION ANALYSIS FOR EAPC (2024) CONDITIONS

#	Intersection	Traffic Control[1]	EAPC (2024) Delay[2] (secs.) AM	PM	Level of Service AM	PM
1	Driveway 1 & Santa Ana Av.	CSS	10.5	9.7	B	A
2	Driveway 2 & Santa Ana Av.	CSS	11.9	12.1	B	B
3	Lilac Av. & Santa Ana Av.	CSS	16.0	14.9	C	B
4	Lilac Av. & Driveway 3	**CSS**	10.5	9.9	B	A
5	Willow Av. & Santa Ana Av.	AWS	10.0	10.2	A	B
6	Riverside Av. & I-10 WB Ramps	TS	40.8	33.7	D	C
7	Riverside Av. & I-10 EB Ramps	TS	**70.0**	**99.0**	**E**	**F**
8	Riverside Av. & Slover Av.	TS	**162.4**	**153.5**	**F**	**F**
9	Riverside Av. & Santa Ana Av.	TS	41.4	45.4	D	D

* **BOLD** = Significant Impact

[1] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

6.5 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for EAPC (2024) traffic conditions are shown on Table 6-2. As shown on Table 6-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under EAPC (2024) traffic conditions. Worksheets for EAPC (2024) traffic conditions off-ramp queuing analysis are provided in Appendix 6.2.

TABLE 6-2: FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAPC (2024) CONDITIONS

Intersection	Movement	Stacking Distance (Feet)	EAPC (2024) 95th Percentile Queue (Feet) AM Peak Hour	EAPC (2024) 95th Percentile Queue (Feet) PM Peak Hour	Acceptable? [1] AM	Acceptable? [1] PM
Riverside Av. & I-10 WB Ramps (#5)	WBL	450	537 [2,3]	398 [2]	Yes	Yes
	WBL/T/R	1,200	484 [2]	323 [2]	Yes	Yes
	WBR	330	421 [2,3]	272	Yes	Yes
Riverside Av. & I-10 EB Ramps (#6)	EBL	1,350	582 [2]	536 [2]	Yes	Yes
	EBL/T/R	1,350	598 [2]	470 [2]	Yes	Yes
	EBR	325	489 [2,3]	422 [2,3]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-10 Freeway mainline.

6.6 TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for EAPC (2024) traffic conditions are based on the peak hour volumes or planning level ADT volume-based traffic signal warrants. No study area intersections are anticipated to meet either peak hour volume or ADT volume-based warrants for EAPC traffic conditions (see Appendix 6.3).

6.6 NEAR-TERM DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

6.6.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The effectiveness of the recommended improvement strategies to address EAPC (2024) traffic deficiencies are presented on Table 6-3. The Project Applicant shall contribute to these improvements through payment of regional DIF fees or fair share contribution as identified on Table 1-3. Improvements shown on Table 6-3 are consistent with both the planned Riverside Avenue South Street Reconstruction Project and the I-10/Riverside Avenue Freight Improvement Project (Phase 2). Worksheets for EAPC (2024) conditions, with improvements, HCM calculation worksheets are provided in Appendix 6.4.

6.6.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown previously on Table 6-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAPC (2024) traffic conditions. As such, no improvements have been recommended.

TABLE 6-3: INTERSECTION ANALYSIS FOR EAPC (2024) CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
7	Riverside Av. & I-10 EB Ramps																	
	- Without Improvements	TS	0	3	0	2	2	0	1	1	1	0	0	0	**70.0**	**99.0**	**E**	**F**
	- With Improvements[4]	TS	0	**5**	0	2	2	0	1	1	1	0	0	0	35.6	27.7	D	C
8	Riverside Av. & Slover Av.																	
	- Without Improvements	TS	1	2	0	1	2	0	1	2	0	1	2	0	**162.4**	**153.5**	**F**	**F**
	- With Improvements[5]	TS	1	**3**	0	1	**3**	**1**	1	2	0	1	2	0	40.4	47.6	D	D

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement

[2] Per the Highway Capacity Manual 6th Edition, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement

[3] TS = Traffic Signal

[4] Improvement is consistent with the planned I-10/Riverside Avenue Freight Improvement Project (Phase 2).

[5] Improvement is consistent with the planned Riverside Avenue South Street Reconstruction Project.

Improvement includes modifying the traffic signal from permissive left turn phasing to protected left turn phasing on the EB/WB approaches.

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7 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Rialto are funded through a combination of project mitigation, development impact fee programs or fair share contributions, such as the City of Rialto Development Impact Fee (DIF) program. Identification and timing of needed improvements is determined through local jurisdictions based upon a variety of factors.

7.1 CITY OF RIALTO DEVELOPMENT IMPACT FEE PROGRAM

In 2006, the City of Rialto adopted their DIF program incorporating the regional component of Measure I. The fee schedule was updated in June 2021. Fees from new residential, commercial, and industrial development are collected to fund Measure I compliant regional facilities. Under the City's DIF program, the City may grant developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the DIF program.

After the City's DIF fees are collected, they are placed in a separate interest-bearing account pursuant to the requirements of Government Code sections 66000 et seq. The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and consultants. The City uses this data to determine the timing of the improvements listed in its facilities list.

Based on the City's current DIF fee schedule, the Project will be paying a total of $848,820 towards the Regional Traffic Fee and Street Medians Fee. The Industrial Regional Traffic Fee is $2.80 per square foot and at 301,000 square feet is $842,800. The Street Medians Fee is $20 per thousand square feet and at 301 thousand square feet is $6,020. The DIF fee for Regional Traffic and Street Medians is $848,820.

7.2 MEASURE "I" FUNDS

In 2004, the voters of San Bernardino County approved the 30-year extension of Measure "I", a one-half of one percent sales tax on retail transactions, through the year 2040, for transportation projects including, but not limited to, infrastructure improvements, commuter rail, public transit, and other identified improvements. The Measure "I" extension requires that a regional traffic impact fee be created to ensure development is paying its fair share. A regional Nexus study was prepared by the San Bernardino County Transportation Authority (SBCTA) and concluded that each jurisdiction should include a regional fee component in their local programs in order to meet the Measure "I" requirement. The regional component assigns specific facilities and cost sharing formulas to each jurisdiction and was most recently updated in November 2021. Revenues collected through these programs are used in tandem with Measure "I" funds to deliver projects identified in the Nexus Study. While Measure "I" is a self-executing sales tax administered by SBCTA, it bears discussion here because the funds raised through Measure "I" have funded in the past and will continue to fund new transportation facilities in San Bernardino County.

7.3 FAIR SHARE CONTRIBUTION

Project improvements may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion).

When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, have been provided on Table 7-1 for the applicable deficient study area intersections.

There are two regional projects that are either underway or under construction:

- **I-10/Riverside Avenue Freight Improvement Project (Phase 2):** currently in its final design and right-of-way acquisition phase which is anticipated to be completed in October 2023 and a current construction completion date of February 2026. This project includes extending the existing dual northbound left turn lanes over the Union Pacific Railroad (UPRR) overcrossing as well as accommodating a continuous sidewalk along Riverside Avenue between the ramps and Slover Avenue. The total cost of the interchange improvement project is $35.5 million with $19.8 million coming from the Trade Corridor Enhancement Program (TECP) and a local match of $15.7 million. Of the $15.7 million, Rialto is responsible for 65.9% of this total, or $10,346,300. However, it is uncertain whether some or all of this is accounted for in the City's current DIF program.
- **Riverside Avenue Street Reconstruction Project (South):** the project is anticipated to be completed in 2023. This project includes providing an overlay and reconstruction of Riverside Avenue between the I-10 Freeway and the Santa Ana River. Specifically, the project includes upgrades of existing and construction of new Americans with Disabilities Act (ADA) compliant curb ramps, reconstruction of sidewalks/driveways/curbs/gutters, underground utilities will be adjusted to new roadway surface grades, and additional intersection lane enhancements at Slover Avenue, Santa Ana Avenue, and Industrial Drive/Resource Avenue. The cost for this project is $9.6 million which is funded through Gas Tax and Measure I, but there is no indication if any or all of the improvements are included in the City's current DIF program.

Based on the Project fair share percentages shown in Table 7-1 and the costs identified above, the Project shall pay the following fair share for the improvements identified in Table 1-3:

- Riverside Avenue at I-10 Eastbound Ramps: $10,346,300 x 4.0% = $410,182
- Riverside Avenue at Slover Avenue: $9,600,000 x 4.6% = $438,223
- **Total = $848,405**

A fair share of $848,405 has been identified based on the costs associated with the proposed improvements. The City's DIF Nexus Study could not be obtained in order to verify the improvements included in the DIF program and calculate the Project's fair share of improvements not included in a pre-existing fee program. As such, the Project Applicant should work with the City to determine the improvements and dollar amount covered by the City's pre-existing DIF program. The Project Applicant will be required to pay $848,820 based on the City's current DIF fee schedule (Regional traffic Fee and Street Medians Fee). Once the appropriate fair share amount has been determined, the

Developer shall be required to pay the fair share amount to the City of Rialto prior to the issuance of building permits.

TABLE 7-1: PROJECT FAIR SHARE CALCULATIONS

#	Intersection		Existing	Project	2024 With Project	Total New Traffic	Project % of New Traffic[1]
7	Riverside Av. & I-10 EB Ramps						
		AM:	3,519	72	5,460	1,941	3.7%
		PM:	4,080	76	5,997	1,917	**4.0%**
8	Riverside Av. & Slover Av.						
		AM:	2,965	72	4,610	1,645	4.4%
		PM:	3,541	75	5,184	1,643	**4.6%**

[1] **BOLD** Highest fair share percentage is highlighted.

8 VEHICLE MILES TRAVELED

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018 requiring all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. This statewide mandate went into effect July 1, 2020. To aid in the transition from LOS to VMT, the Governor's Office of Planning and Research (OPR) published its Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) (6). It is our understanding that the City of Rialto is currently in development of City specific VMT analysis guidelines and impact thresholds based on OPR's Technical Advisory. As such, City Staff has provided Urban Crossroads with drafted guidelines that the City intends to adopt; The City of Rialto Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS) (October 2021) (1) (**City Guidelines**). The City Guidelines have been utilized to prepare this VMT analysis.

8.1 VMT SCREENING EVALUATION

The City Guidelines provide details on appropriate "screening thresholds" that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed analysis. It is our understanding the City of Rialto utilizes the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool (Screening Tool). The Screening Tool allows users to select an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening thresholds for land use projects identified in the City Guidelines. Screening thresholds are broken into the following three types:

- Step 1: Transit Priority Area (TPA) Screening
- Step 2: Low VMT Area Screening
- Step 3: Project Type Screening

A land use project only needs to meet one of the above screening thresholds to result in a less than significant impact.

8.1.1 STEP 1: TPA SCREENING

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"[1] or an existing stop along a "high-quality transit corridor"[2]) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

The Project site is not located within ½ mile of an existing major transit stop, or along a high-quality transit corridor, and would not meet the FAR threshold of 0.75 or greater (see Appendix 8.1).

TPA screening threshold is not met.

8.1.2 STEP 2: LOW VMT AREA SCREENING

As noted in the City Guidelines, "Residential and office projects located within a low VMT generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment related uses and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area." The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual traffic analysis zones (TAZs) within the region. The Project's physical location based on parcel number is selected in the Screening Tool to determine the TAZ in which the Project will reside. The Project's TAZ VMT per employee was compared to the County of San Bernardino baseline average VMT per employee. The parcel containing the proposed Project was selected and the Screening Tool was run for Production/Attraction (PA) home-based work (HBW) VMT per employee (see Appendix 8.1). The Screening Tool determined that the Project is not located within a low VMT generating zone.

Low VMT Area screening criteria is not met.

8.1.3 STEP 3: PROJECT TYPE SCREENING CRITERIA

The City Guidelines describe that local serving retail projects less than 50,000 square feet may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition to local serving retail, the City Guidelines also provides a list of land use projects that may be presumed to cause a less than significant impact based on size or quantity:

- 11 single family housing units
- 16 multi-family housing units
- 10,000 sf of office
- 15,000 sf of light industrial
- 63,000 sf of warehousing
- 79,000 sf of high cube transload short-term storage warehouse

The Project proposes to develop a warehouse distribution building totaling 301,000 sf which exceeds the 63,000 sf project type screening size identified by the City Guidelines.

Project Type screening criteria is not met.

As the Project was not found to meet any of the aforementioned VMT screening criteria, a project level VMT analysis is prepared to assess the Project's potential impact to VMT.

8.2 VMT ANALYSIS

8.2.1 VMT MODELING

City Guidelines identify San Bernardino Transportation Analysis Model (SBTAM) as the appropriate tool for conducting VMT analysis for land use projects in San Bernardino County. SBTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The calculation of VMT for land use projects is based on the total number of trips generated and the average trip length of each vehicle. SBTAM is also consistent with the model used to develop the City's VMT impact thresholds listed by the City Guidelines. Therefore, the vehicle trips and average daily trip length for project-related vehicle trips are model derived from SBTAM.

8.2.2 VMT METRIC AND SIGNIFICANCE THRESHOLD

Through consultation with City Staff, it was identified that the appropriate VMT metric for employment generating industrial land uses to be utilized for the purposes of this VMT Analysis is VMT per employee[3]. As noted in the City Guidelines, the Project would result in a significant project generated VMT impact if either of the following conditions is met for industrial projects:

- Baseline project generated VMT per employee exceeds the County of San Bernardino VMT per employee, or
- Cumulative project generated VMT per employee exceeds the County of San Bernardino VMT per employee.

SBCTA provides VMT calculations for each of its member agencies and for the baseline County of San Bernardino region. Urban Crossroads obtained this published data from SBCTA, which for the County of San Bernardino is 17.35 VMT per employee for 2022.

8.2.3 PROJECT LAND USE CONVERSION

In order to evaluate Project VMT, standard land use information must first be converted into a SBTAM compatible dataset. The SBTAM model utilizes socio-economic data (SED) (e.g., population, households, employment, etc.) instead of land use information for the purposes of vehicle trip estimation. Project land use information such as building square footage must first be converted to SED for input into SBTAM. Adjustments in SED have been made to the appropriate TAZ within the SBTAM model to reflect the Project's proposed land uses (i.e., warehouse). Table 8-1 summarizes the employment estimates for the Project. It should be noted that the employment estimates are consistent with the employment density factors identified in the Southern California Association of Governments (SCAG) Employment Density Study (October 2001) (7).

[3] J. Schlaefli (personal communication, November 18, 2021)

TABLE 8-1: EMPLOYMENT ESTIMATES

Land Use	Quantity (SF)	Employment Density Factor[4]	Estimated Employees
Warehouse	301,000	1,195 SF per employee	252

8.2.4 PROJECT GENERATED VMT PER EMPLOYEE CALCULATION

Adjustments to employment for the Project's TAZ were made to the SBTAM base year (2016) and cumulative year (2040) traffic models, and each model was then run inclusive of the SED factors. The ability to capture commute trips can be achieved with the SBTAM model by using the Production/Attraction (PA) trip matrices exclusive of truck trips[5]. Using these matrices, the HBW VMT was calculated for both the base year (2016) and cumulative year (2040) conditions. The HBW VMT is then normalized by dividing by the Project employees. The results of the base year and cumulative year conditions were calculated for baseline (2022) conditions using straight-line interpolation. As shown in Table 8-2, the Project's baseline VMT per employee is 13.80 and cumulative VMT per employee is 13.37.

TABLE 8-2: PROJECT VMT PER EMPLOYEE

	Base Year (2016)	Cumulative Year (2040)	Baseline (2022)
Employees	252	252	252
VMT	3,512	3,370	3,477
VMT Per Employee	13.94	13.37	13.80

8.2.5 PROJECT COMPARISON TO SIGNIFICANCE THRESHOLD

Table 8-3 illustrates the comparison between Project's baseline and cumulative VMT per employee to the City's impact threshold. SBCTA provides published VMT values for its member agencies for the baseline County of San Bernardino, which is 16.9 VMT per employee.

[4] Table II-B of the SCAG Employment Density Study.

[5] CEQA Guidelines Section 15064.3, subdivision (a) states "For purposes of this section "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project". The OPR's Technical Advisory indicates that, although heavy truck traffic can be included for analysis convenience, the provided analysis requirements are specific to passenger-vehicles and light duty trucks. While it may be appropriate to consider heavy vehicle traffic (HDT) if directed by the lead agency, it is generally understood that Interstate commerce and related heavy vehicle traffic are regulated by the Federal government as it relates to commerce. Irrespective of this and considering that the end-user may not be known at this time, it is reasonable to assume that the ultimate end user will select locations, at least in part, as to how it effects their transportation costs. Accordingly, it is reasonable to assume that industrial buildings are often located in a manner to reduce VMT given that it is in the interest of the business. In most cases, Consistent with other CEQA technical studies, HDT VMT will be reflected in other applicable technical studies (e.g., Air Quality Impact Analysis, Greenhouse Gas Analysis etc.

TABLE 8-3: PROJECT VMT PER EMPLOYEE COMPARISON

	Baseline	Cumulative
Impact Threshold	16.9	16.9
Project	13.80	13.37
Percent Change	-18.34%	-20.89%
Potentially Significant?	No	No

Project generated VMT per employee would not exceed the City's impact threshold for both baseline and cumulative conditions, therefore, the Project's impact to VMT is less than significant.

8.2.6 PROJECT'S CUMULATIVE EFFECT ON VMT

The City Guidelines consistent with the Technical Advisory states that cumulative impacts on VMT "… metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency (as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impact that utilize plan compliance as a threshold of significance." The Project is consistent with the City's underlying General Plan land use assumptions and was found to have a less than significant impact at the project level. Therefore, the Project is also considered to be less than significant under cumulative conditions.

8.3 CONCLUSION

In summary, the Project did not meet any of the City's described screening criteria and, as required by City guidelines, a project level VMT analysis was performed. The Project level VMT analysis determined that VMT generated per employee did not exceed the City's impact threshold. The Project's VMT impacts, therefore, are presumed to be less than significant.

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9 REFERENCES

1. **City of Rialto.** *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS),.* Rialto : s.n., October 2021.
2. **San Bernardino Associated Governments.** *Congestion Management Program for County of San Bernardino.* County of San Bernardino : s.n., Updated June 2016.
3. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
4. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
5. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (CA MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CA MUTCD).* 2014, Updated March 30, 2021 (Revision 6).
6. **Office of Planning and Research.** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* State of California : s.n., December 2018.
7. **Southern California Association of Governments.** *Employment Density Study.* October 2001.

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APPENDIX 1.1: APPROVED TRAFFIC STUDY SCOPING AGREEMENT

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From: Justin Schlaefli
To: Charlene So
Subject: Re: JN:14823 Santa Ana and Lilac Scope
Date: Monday, September 12, 2022 5:04:38 PM
Attachments: image001.png
image004.png
image004.png
image001.png
EAR2022-0059 - Approved Traffic Scoping Agreement.pdf

Yes.

-Justin Schlaefli

Sent from my iPhone

> On Sep 12, 2022, at 2:51 PM, Charlene So <cso@urbanxroads.com> wrote:
>
> Hi Justin,
>
> Based on our discussion, can we update the trip generation identified in the attached scope to use the 11th edition rates for ITE 150 along with the City's vehicle mix? Below is a summary of the resulting trip generation that we are proposing to use for the study. Thanks!
>
> Regards,
>
> **CHARLENE SO, PE**
> Principal
> (949) 861-0177 Mobile
> **urbanxroads.com**

Exhibit A

SCOPING AGREEMENT FOR TRAFFIC IMPACT ANALYSIS

This following form shall be used to acknowledge preliminary approval of the scope for the traffic impact analysis (TIA) of the following project. The TIA must follow the City of Rialto Traffic Impact Analysis – Report Guidelines and Requirements, adopted by the City Council on _____.

City of Rialto

Traffic Impact Analysis

Scoping Agreement

Case No. MC 2022-0065

Related Cases -

SP No. _____

EIR No. _____

GPA No. _____

ZC No. _____

Project Name: Santa Ana & Lilac Warehouse

Project Address: southwest corner of Lilac Av and Santa Ana Av

Project Description: 301,000 SF warehouse building

	Consultant	Developer Representative
Name:	Urban Crossroads - Charlene So	FirstCarbon Solutions - Angela Wolfe
Address:	1133 Camelback St. #8329, Newport Beach, CA	250 Commerce, Suite 250, Irvine, CA 92602
Telephone:	949-861-0177	
Fax:	cso@urbanxroads.com	awolfe@fcs-intl.com

1. Trip Generation Source: ITE 9th Ed Trip Gen Manual (2012) + Rialto TIA Guidelines for Truck Mix

Existing GP Land Use Light Industrial Proposed Land Use Light Industrial

Current Zoning: M-1 Proposed Zoning: M-1

Total Daily Project Trips: 1,800 (PCE)

	Current Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				121	30	152 (PCE)
PM Trips				40	121	161 (PCE)

Internal Trip Allowance Yes X No (N/A % Trip Discount)

Pass-By Trip Allowance Yes X No (N/A % Trip Discount)

For appropriate land uses, a pass-by trip discount may be allowed not to exceed 25%. Discount trips shall be indicated on a report figure for intersections and access locations.

2. Trip Geographic Distribution: N % S % E % W % VARIES

(Detailed exhibits of trip distribution must be attached with Trucks as a separate exhibit)

3. Background Growth Traffic

Project Completion Year: 2024 Annual Background Growth Rate: 2.0 %

Other Phase Years N/A

Other area projects to be considered: See Exhibit 5 and Table 5 - City to provide new projects

(Contact Planning for Lists. Correlate projects to exhibit map and also indicate which projects have been included in study area forecasts for existing + background growth + project + cumulative)

Model/Forecast methodology: N/A

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

1. Driveway 1 & Santa Ana Av.
2. Driveway 2 & Santa Ana Av.
3. Lilac Av. & Santa Ana Av.
4. Lilac Av. & Driveway 3
5. Willow Av. & Santa Ana Av.
6. Riverside Av. & I-10 WB Ramps
7. Riverside Av. & I-10 EB Ramps
8. Riverside Av. & Slover Av.
9. Riverside Av. & Santa Ana Av.
10. _____

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

1. Not Applicable
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

6. Other Jurisdictional Impacts

Is this project within any other Agency's Sphere of Influence or within one-mile of another jurisdictional boundary?

Yes, County of San Bernardino YES

_____ NO

If so, name of Jurisdiction: County of San Bernardino

7. Site Plan (please attach 11" x 17" legible copy)

8. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (to be filled out by the City of Rialto Public Works 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 un-signalized 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.)

See Special Issues of attached Memo

9. Existing Conditions

Traffic count data must be new or within one year. Provide traffic count dates if using other than new counts.

Date of counts: February 2022

NOTE Fees are due and must be submitted with, or prior to submittal of this form. The City will not process the Scoping Agreement prior to the receipt of the processing fee.

Fees Paid: _____ Date _____

Recommended:

Scoping Agreement Submittal date 7/18/2022

Scoping Agreement Resubmittal date _____

Charlene So 7/18/2022

Applicant/Engineer Date

Land Use Concurrence:

8-23-2022

Development Services Department Date

Approved by:

Justin P. Schlaefli 8/23/22

Public Works Department Date

NOTE:

The Applicant/Engineer acknowledges that the Scoping Agreement is intended to assist in the preparation of any required TIA. It is preliminary in nature and the City does not have sufficient data to determine the ultimate conditions that may be imposed for the project. It does not provide nor limit the requirements imposed on the Project but is intended only to provide initial input into the parameters for review of the traffic generated by the Project and the initial areas to be considered and studied. Subsequent changes to scope of required analysis to be included in the TIA may be required by the Transportation Commission, Planning Commission, and/or the City Council upon Public Works Director/City Engineer review and approval.

July 13, 2022

Mr. Daniel Casey
City of Rialto
335 W. Rialto Avenue
Rialto, CA 92376

SANTA ANA & LILAC WAREHOUSE SCOPING AGREEMENT

Mr. Daniel Casey,

The firm of Urban Crossroads, Inc. is pleased to submit this letter documenting the recommended Scope of Work for the traffic assessment in support of the proposed Santa Ana & Lilac Warehouse development (**Project**), which is located on the southwest corner of Lilac Avenue and Santa Ana Avenue in the City of Rialto. Exhibit 1 depicts the location of the proposed Project in relation to the existing roadway network.

Our goal is to obtain comments from City of Rialto staff, to ensure that the traffic assessment fully addresses the potential effects of the proposed Project. The remainder of this letter describes the draft proposed analysis methodology, project trip generation, trip distribution, and project traffic assignment/project trips on the surrounding roadway network, which have been used to establish the draft proposed project study area and analysis locations. The following scoping agreement has been prepared consistent with the City's Draft Traffic Impact Analysis Guidelines for VMT and LOS Assessment (October 2021, referred to as **City's Guidelines**).

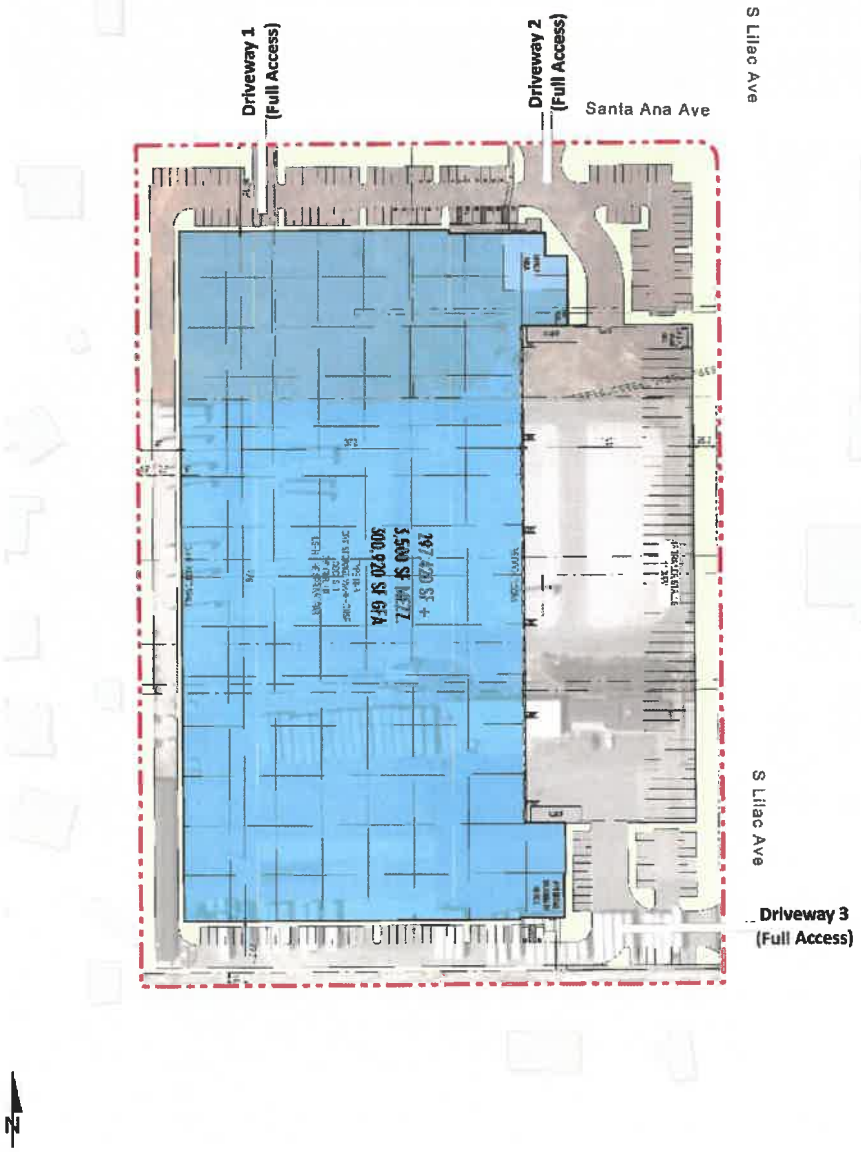
EXHIBIT 1: LOCATION MAP



It is our understanding that the Project is to consist of a single 301,000 square foot warehouse building. The Project is anticipated to be constructed in one phase by the year 2024. A preliminary site plan of which the traffic study will be based on, is shown on Exhibit 2. The following describes the access proposed for the site (all driveways will allow for full access):

- Driveway 1 on Santa Ana Avenue – passenger cars only
- Driveway 2 on Santa Ana Avenue – passenger cars & trucks
- Driveway 3 on Lilac Avenue – passenger cars & trucks

EXHIBIT 2: PRELIMINARY SITE PLAN



STUDY AREA

The traffic impact study area was defined in conformance with the requirements of the City's traffic study guidelines, which state that the requirement to prepare a TIA will be based upon, but not limited to, one or more of the following criteria:

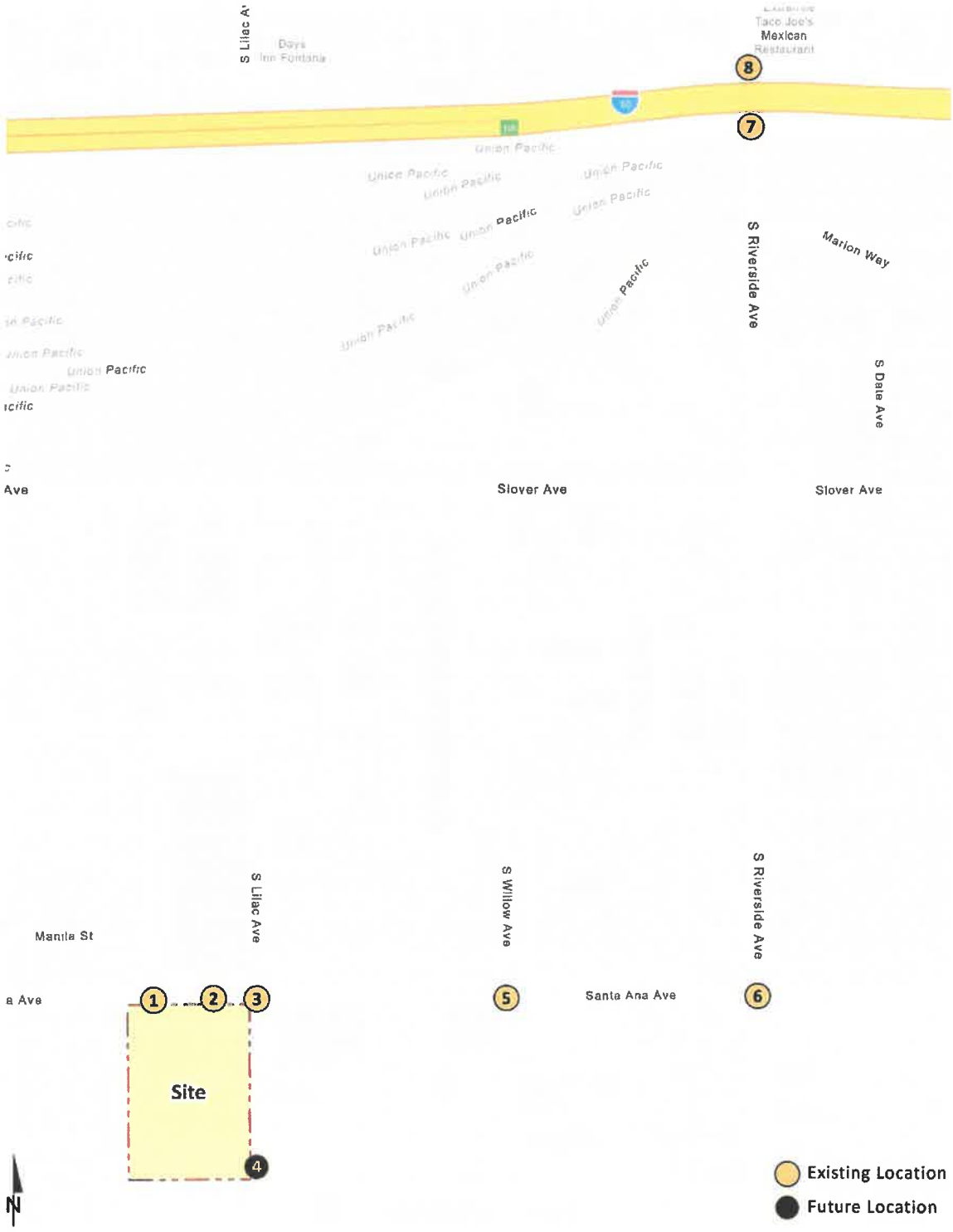
- In general, the study area shall include any intersection of streets on which at least one street is classified as a Collector or above, where the proposed project, along with adjacent projects, opening in the same time frame, generate more than 50 peak hour trips (truck trips adjusted to PCE) up to 5 miles from the project site.
- The study area shall include any freeway interchanges within 2 miles that is designated to take more than 40% of total traffic from the project, irrespective of the total number of trips.
- Any additional intersections of concern which include, but are not limited to, project driveways, additional intersections located in the vicinity of schools, shopping areas, or other locations of high trip generation and roadway links that exceed V/C ratio as a result of project traffic, as determined by the City of Rialto.

The proposed intersection analysis locations have been identified on Exhibit 3 and listed in Table 1.

TABLE 1: LIST OF STUDY INTERSECTIONS

#	Intersection
1	Driveway 1 & Santa Ana Av.
2	Driveway 2 & Santa Ana Av.
3	Lilac Av. & Santa Ana Av.
4	Lilac Av. & Driveway 3
5	Willow Av. & Santa Ana Av.
6	Riverside Av. & I-10 WB Ramps
7	Riverside Av. & I-10 EB Ramps
8	Riverside Av. & Slover Av.
9	Riverside Av. & Santa Ana Av.

EXHIBIT 3: STUDY AREA



ANALYSIS SCENARIOS

The following analysis scenarios will be analyzed for this traffic study:

- Existing (2022) Conditions
- Existing plus Ambient Growth plus Project (EAP) (2024) Conditions
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2024) Conditions

The study area intersections will be evaluated using the HCM 6th Edition methodology.

LEVEL OF SERVICE (LOS) CRITERIA

The City of Rialto 2010 General Plan Update has established minimum LOS standards. Specifically, General Plan Policies 4-1.20 and 4-1.21 establish the minimum standards to be applied to any TIA, as follows:

- Policy 4-1.20: Design City streets so that signalized intersections operate at Level of Service (LOS) D or better during the morning and evening peak hours and require new development to mitigate traffic impacts that degrade LOS below that level.
- Policy 4-1.21: Design City streets so that unsignalized intersections operate with no vehicular movement having 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.

DEFICIENCY CRITERIA

For the intersections that lie within the City of Rialto, determination of whether the Project has an adverse effect on intersection operations will be based on a comparison of without and with project levels of service. A deficiency occurs if project traffic increases the average delay at an intersection by more than the thresholds identified on Table 2. Deficiencies are deemed to occur at any intersection in which the Project causes the LOS to fall below LOS D or the peak hour delay to increase as follows:

TABLE 2: INTERSECTION DEFICIENCY CRITERIA

Pre-Project LOS	Deficiency Criteria[1]
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

[1] Increase in delay.

PROJECT TRIP GENERATION

In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition, 2012) for Warehousing (ITE Land Use Code 150) were used (per the City's Guidelines). The vehicle and truck mix were sourced from the City's Guidelines. Table 3 presents the trip generation rates.

As noted in Table 3, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips between passenger cars and trucks. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. Passenger Car Equivalent (PCE) factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in City's Guidelines.

TABLE 3: PROJECT TRIP GENERATION RATES

Land Use[1]	ITE LU Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicle Trip Generation Rates:									
Warehousing[3]	150	TSF	0.240	0.060	0.300	0.080	0.240	0.320	3.560
Passenger Cars (60.0%)			0.144	0.036	0.180	0.048	0.144	0.192	2.136
2-Axle Trucks (0.8%)			0.002	0.001	0.003	0.001	0.002	0.003	0.029
3-Axle Trucks (11.2%)			0.027	0.007	0.034	0.009	0.027	0.036	0.399
4+-Axle Trucks (28.0%)			0.067	0.016	0.083	0.022	0.067	0.089	0.996
PCE Trip Generation Rates:[4]									
Warehousing[3]	150	TSF	0.240	0.060	0.300	0.080	0.240	0.320	3.560
Passenger Cars			0.144	0.036	0.180	0.048	0.144	0.192	2.136
2-Axle Trucks (PCE = 1.5)			0.003	0.002	0.005	0.002	0.003	0.005	0.044
3-Axle Trucks (PCE = 2.0)			0.054	0.014	0.068	0.018	0.054	0.072	0.798
4+-Axle Trucks (PCE = 2.0)			0.201	0.048	0.249	0.066	0.201	0.267	2.988

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Ninth Edition (2012).

[2] TSF = thousand square feet

[3] Vehicle and Truck Mix Source: City of Rialto Public Works Department Traffic Impact Analysis Report Guidelines and Requirements (2013).

[4] PCE rates are per City of Rialto Public Works Department Traffic Impact Analysis Report Guidelines and Requirements (2013).

Table 4 shows the resulting Project trip generation summary, which shows the Project is anticipated to generate a net total of 1,800 two-way passenger car equivalent (PCE) trips per day with 152 PCE AM peak hour trips and 161 PCE PM peak hour trips.

Based on a review of aerial imagery, it appears that there is an existing use that occupies a portion of the site (Alliance Shippers). 24-hour traffic counts will be conducted at the driveway for this existing facility over 2 consecutive weekdays in order to calculate an average weekday trip generation for the existing use. Trip generation credit will be taken against the proposed Project

trip generation shown in Table 4 and the net new trips will be evaluated in the Traffic Study for the identified study area.

TABLE 4: PROJECT TRIP GENERATION SUMMARY

			AM Peak Hour			PM Peak Hour			
Project	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
Actual Vehicles:									
Santa Ana & Lilac Warehouse	301.000	TSF							
Passenger Cars:			43	11	55	14	43	58	644
2-Axle Trucks:			1	0	1	0	1	1	10
3-Axle Trucks:			8	2	10	3	8	11	120
4+-Axle Trucks:			20	5	25	7	20	27	300
Total Trucks:			29	8	36	10	29	38	430
Total Trips (Actual Vehicles)[2]			72	19	91	24	72	96	1,074
Passenger Car Equivalent (PCE):									
Santa Ana & Lilac Warehouse	301.000	TSF							
Passenger Cars:			43	11	55	14	43	58	644
2-Axle Trucks (PCE = 1.5):			1	0	1	0	1	1	16
3-Axle Trucks (PCE = 2.0):			16	4	20	5	16	22	240
4+-Axle Trucks (PCE = 3.0):			61	14	75	20	61	80	900
Total Trucks (PCE):			78	19	97	26	78	103	1,156
Total Trips (PCE)[2]			121	30	152	40	121	161	1,800

[1] TSF = Thousand Square Feet

[2] Total Trips = Passenger Cars + Truck Trips

PROJECT TRIP DISTRIBUTIONS

The project trip distribution patterns for both passenger cars and trucks have been developed based on recent experience on other studies for similar land uses in the vicinity. Passenger car distribution patterns will be based on existing and planned land uses and roadway infrastructure in the area. Truck distribution patterns will be based on City truck routes, proximity to the freeway system, and the Project Applicant's input on percentage of traffic oriented to the Ports or other destination. The industrial passenger car and truck trip distributions are illustrated on Exhibits 3 and 4, respectively.

EXHIBIT 3: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION

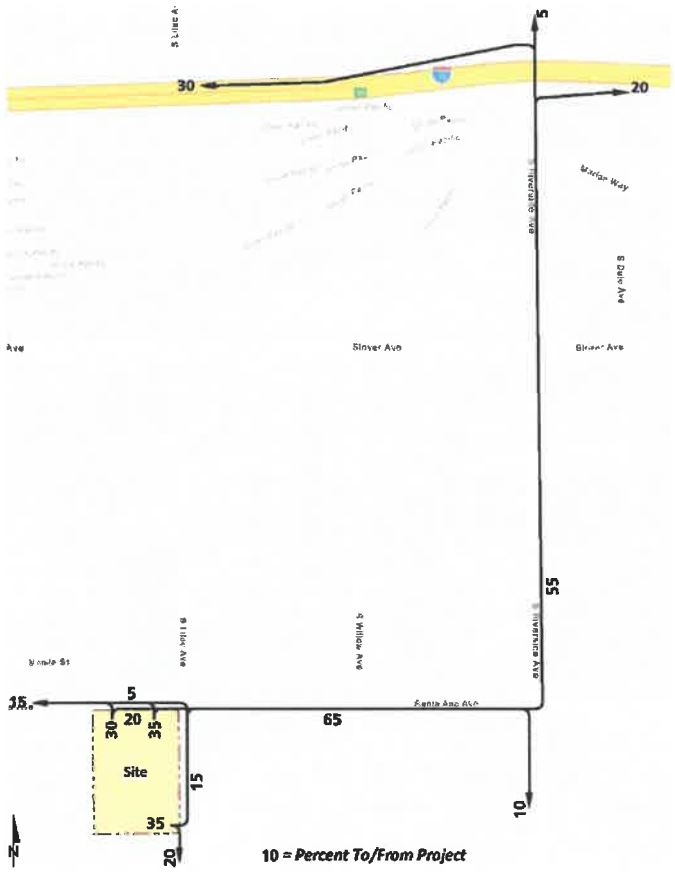


EXHIBIT 4: PROJECT (TRUCK) TRIP DISTRIBUTION



EXISTING COUNT DATA

Traffic counts (classified by vehicle type) have already been collected in February 2022 while local schools are in session and operating on a typical bell schedule. Time periods to be counted will be from 7:00-9:00 AM and 4:00-6:00 PM and will include pedestrian and bicycle counts at each analysis location. No adjustments are proposed to the new traffic counts for the baseline traffic condition as traffic counts will be conducted while local schools are in session.

AMBIENT GROWTH RATE

Consistent with other studies performed in the area, an ambient growth rate of 2.0% per year is proposed for the study area intersections to approximate background traffic growth not identified by nearby cumulative development projects. The rate will be compounded over a two-year period (i.e., $1.02^{2\text{years}} = 1.0404$ or 4.04% for 2024).

SPECIAL ISSUES

The following special issues will be addressed as part of the TA:

- *Traffic Signal Warrant Analysis*: Traffic signal warrant analysis will be performed for all full-access unsignalized study area intersections utilizing the Caltrans peak-hour warrants for existing intersections, and the Caltrans daily warrant for new intersections.
- *Site Access Evaluation*: The turn pocket lengths will be determined through peak hour traffic simulations developed using Synchro and SimTraffic software in an effort to identify the required storage capacity for turn lanes at each Project driveway.
- *Roadway Improvements*: Site adjacent roadway improvements will be reviewed and compared to the Renaissance Specific Plan to identify consistency and/or any deviations.
- *Fair Share Analysis*: Fair share table will be provided in the traffic study and will provide calculations at locations with direct and cumulative deficiencies.
- *Truck Access*: Use truck turn templates at the applicable driveways/turning maneuvers to verify adequate access for heavy trucks. These template exhibits will be incorporated into the traffic study.
- *VMT*: Consistent with SB743, a vehicle-miles-traveled (VMT) assessment will be prepared for the proposed Project under separate cover in order to identify any traffic impacts and mitigation measures and will be used to support the California Environmental Quality Act (CEQA) environmental document.

FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in a local or regional fee program will be identified as such in a table. The table shall include direct and cumulative impacts. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share financial contribution based on the Project's fair share impact will be calculated in order to mitigate the Project's share of impacts. The City will collect fir share component or condition Project to build improvement as deemed appropriate. The Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to new traffic, where new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (EAPC Total Traffic – Existing Traffic)

SIGNAL TIMING

It is requested that the City provide signal timing for any City controlled intersections to be utilized in the analysis. Traffic signal timing for the I-10 Freeway at Riverside Avenue interchange has already been obtained from Caltrans District 8.

CUMULATIVE DEVELOPMENT PROJECTS

A list of cumulative development projects and their proposed land uses are shown in Table 5. Exhibit 5 illustrates the locations of these cumulative development projects. Please provide any updated projects for inclusion on the list.

EXHIBIT 5: CUMULATIVE DEVELOPMENT PROJECT LOCATION MAP

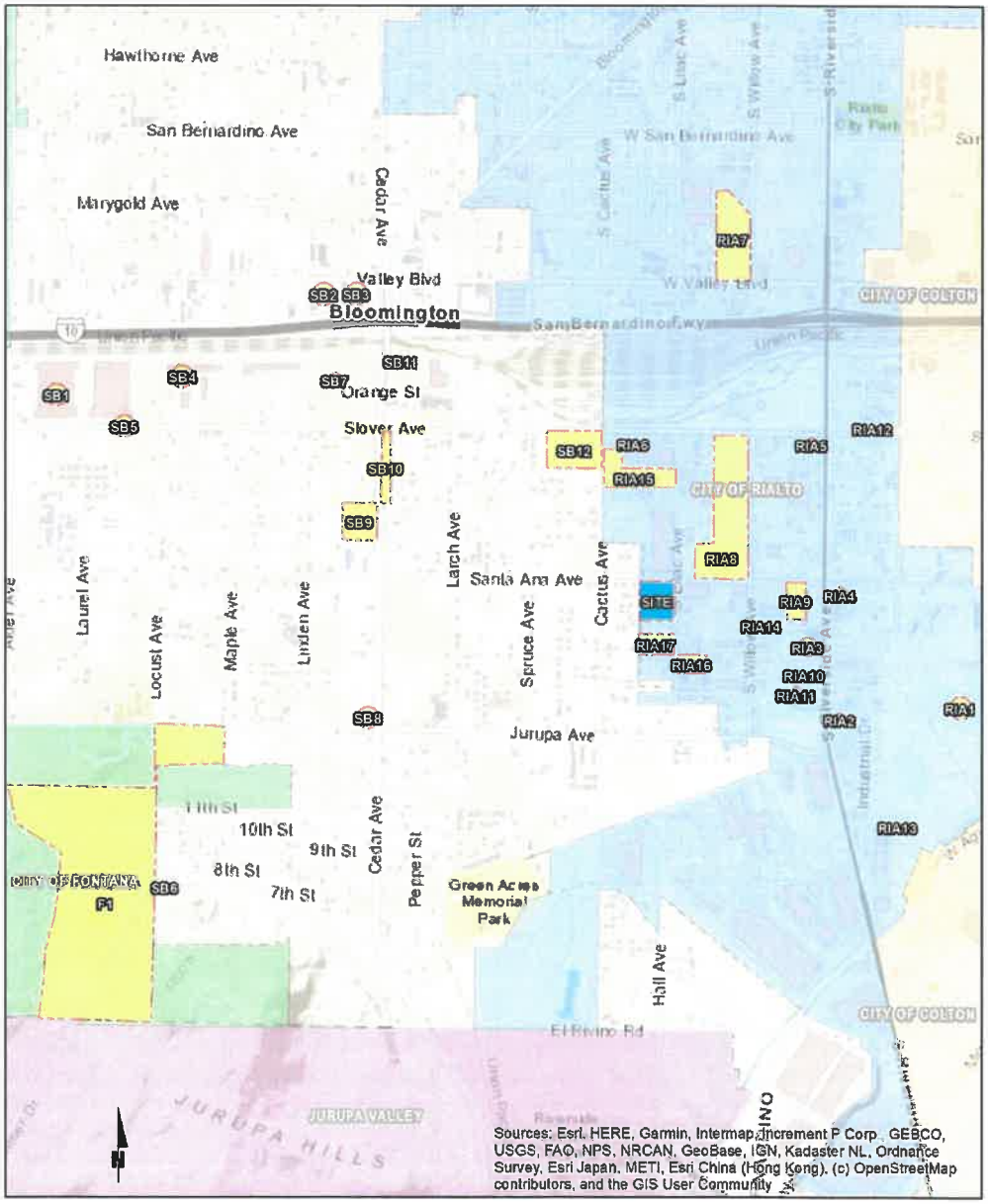


TABLE 5: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

ID	Project Name	Land Use	Quantity	Units[1]
City of Rialto:				
RIA1	South of Santa Ana Av., East of Riverside Av.	Warehouse	370.000	TSF
RIA2	SEC of Riverside Av. and Industrial Dr.	Trucking	3.580	AC
RIA3	NWC of Riverside Av. and Industrial Dr.	Truck Drop	3.360	AC
RIA4	SEC of Riverside Av. and Santa Ana Av.	Super Convenience Market/Gas Station	16	VFP
		Diesel Station	2	VFP
RIA5	SWC of Riverside Av. & Slover Av.	Fast Food w/ Drive-Thru	5.200	TSF
RIA6	Flyers Energy Addition	Warehouse	9.350	TSF
RIA7	Valley/Willow Warehouse	Warehousing	492.410	TSF
RIA8	Old Dominion Expansion	Parking Lot (407 spaces)	17.780	AC
RIA9	SC Fuels	Fuel Storage/Service	54.460	TSF
RIA10	Lynn Trucking	Truck Parking Yard	3.070	AC
		Car Wash/Repair	8.827	TSF
RIA11	Riverside Pallet Yard	Pallet Yard	3.580	AC
RIA12	Onyx Paving	Contractor's Yard	0.770	AC
RIA13	Angelus Black - Concrete Block	Manufacturing	178.475	TSF
RIA14	Bakery Addition	Bakery	14.000	TSF
RIA15	Lilac Avenue Warehouse	Truck Terminal	47.609	TSF
RIA16	Lilac Commerce Center	Warehouse	82.958	TSF
RIA17	2690 Lilac Av.	Warehouse	69.100	TSF
County of San Bernardino:				
SB1	NWC of Slover Av. and Locust Av.	Fast Food Restaurant With Drive-Thru	3.265	TSF
		Retail Store	7.200	TSF
		Warehouse	20.750	TSF
SB2	SEC of Linden Av. and Valley Bl.	Fast Food Restaurant	1.500	TSF
SB3	Valley Bl., West of Linden Av.	Office Building	0.250	AC
SB4	Linden Av., north of Slover Av.	Tire Store	3.000	TSF
SB5	Slover Av. between Locust Av. and Laurel Av.	High-Cube Warehouse	344.000	TSF
SB6	Locust Av. and 7th St.	Single Family Residential	198	DU
SB7	NEC and NWC of Cedar Av. and Orange St.	Warehouse	395.000	TSF
SB8	NWC of Cedar Av. and Jurupa Av.	High-Cube Warehouse	677.000	TSF
SB9	Cedar Truck Yard	Truck Storage	8.940	AC
SB10	Cedar / Slover Retail	Super Convenience Market/Gas Station	12	VFP
		Automated Car Wash	1.000	Tunnel
		Fast Food Restaurant With Drive-Thru	9.907	TSF
SB11	Cedar Avenue Technology Center	Warehouse	184.770	TSF
SB12	Cactus and Slover Warehouse	Warehouse	257.855	TSF
City of Fontana:				
F1	West Valley Logistics Center	High-Cube Transload & Short-Term Storage	3183.100	TSF
		Warehouse	290.590	TSF

[1] DU = Dwelling Units; TSF = Thousand Square Feet; AC = Acres; VFP = Vehicle Fueling Positions

If you have any questions or comments, I can be reached at cso@urbanxroads.com.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Charlene So, PE
Principal

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APPENDIX 1.2: SITE ADJACENT QUEUES

Intersection: 1: Santa Ana Av. & Driveway 1

Movement	EB	WB	SB
Directions Served	LTR	L	LTR
Maximum Queue (ft)	7	15	31
Average Queue (ft)	0	1	4
95th Queue (ft)	4	8	20
Link Distance (ft)	790		174
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		50	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Santa Ana Av. & Driveway 2

Movement	EB	WB	NB	SB
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	7	31	61	54
Average Queue (ft)	0	3	28	22
95th Queue (ft)	4	17	51	48
Link Distance (ft)			90	151
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)	50	50		
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 3: Lilac Av. & Santa Ana Av.

Movement	EB	EB	WB	NB	SB
Directions Served	L	TR	LTR	LTR	LTR
Maximum Queue (ft)	14	6	37	76	81
Average Queue (ft)	0	0	10	39	38
95th Queue (ft)	6	3	35	61	63
Link Distance (ft)		224	1287	1090	290
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	50				
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: Lilac Av. & Driveway 3

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	8
Average Queue (ft)	10	0
95th Queue (ft)	33	5
Link Distance (ft)	195	558
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

Intersection: 1: Santa Ana Av. & Driveway 1

Movement	WB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	7	35	31
Average Queue (ft)	0	6	8
95th Queue (ft)	6	26	30
Link Distance (ft)		104	174
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	50		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Santa Ana Av. & Driveway 2

Movement	WB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	23	60	53
Average Queue (ft)	1	26	25
95th Queue (ft)	12	50	48
Link Distance (ft)		90	151
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 3: Lilac Av. & Santa Ana Av.

Movement	EB	EB	WB	NB	SB
Directions Served	L	TR	LTR	LTR	LTR
Maximum Queue (ft)	31	6	47	68	61
Average Queue (ft)	4	0	10	40	37
95th Queue (ft)	22	5	35	61	55
Link Distance (ft)		224	1287	1090	290
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	50				
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Intersection: 4: Lilac Av. & Driveway 3

Movement	EB
Directions Served	LR
Maximum Queue (ft)	42
Average Queue (ft)	15
95th Queue (ft)	41
Link Distance (ft)	195
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 0

APPENDIX 3.1: TRAFFIC COUNTS

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Volume Development
AM Peak Hour

1: Driveway 1 & Santa Ana Av.

	PHF:	0.856		7:15					Count Date:		7/20/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**0**	**0**	**0**	**5**	**0**	**0**	**4**	**104**	**0**	**0**	**94**	**13**	**220**
EAP (2024):	0	0	0	5	0	0	4	112	3	6	101	13	244
EAPC (2024):	0	0	0	5	0	0	4	118	3	6	103	13	252

2: Driveway 2 & Santa Ana Av.

	PHF:	0.846		7:15					Count Date:		7/20/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**106**	**0**	**0**	**107**	**5**	**223**
EAP (2024):	3	0	14	2	0	0	3	110	4	23	117	5	281
EAPC (2024):	3	43	14	2	37	0	3	116	4	23	119	5	369

3: Lilac Av. & Santa Ana Av.

	PHF:	0.805		7:30am					Count Date:		2/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**11**	**32**	**12**	**6**	**45**	**29**	**8**	**88**	**13**	**24**	**72**	**22**	**360**
EAP (2024):	11	33	23	6	46	30	8	105	14	41	103	22	444
EAPC (2024):	13	76	36	6	83	30	8	105	20	80	103	22	584

4: Lilac Av. & Driveway 3

	PHF:	0.920							Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**0**	**55**	**0**	**0**	**82**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**137**
EAP (2024):	6	57	0	0	85	16	11	0	0	0	0	0	175
EAPC (2024):	6	115	0	0	167	16	11	0	0	0	0	0	315

5: Willow Av. & Santa Ana Av.

	PHF:	0.855		7:30am					Count Date:		2/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**11**	**34**	**27**	**11**	**38**	**21**	**7**	**84**	**15**	**33**	**85**	**18**	**383**
EAP (2024):	11	35	28	11	40	22	7	112	15	34	133	19	468
EAPC (2024):	11	78	28	11	59	22	7	125	15	34	172	19	582

6: Riverside Av. & I-10 WB Ramps

	PHF:	0.944		7:00am					Count Date:		2/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**301**	**710**	**0**	**0**	**1,055**	**630**	**0**	**0**	**0**	**507**	**0**	**344**	**3,546**
EAP (2024):	327	739	0	0	1,099	655	0	0	0	544	0	358	3,721
EAPC (2024):	540	1,140	0	0	1,318	711	0	0	0	868	0	517	5,093

7: Riverside Av. & I-10 EB Ramps

	PHF:	0.901		7:00am					Count Date:		2/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**0**	**705**	**467**	**455**	**1,107**	**0**	**307**	**4**	**476**	**0**	**0**	**0**	**3,519**
EAP (2024):	0	747	496	473	1,170	0	319	4	518	0	0	0	3,728
EAPC (2024):	0	1,128	739	514	1,672	0	552	4	845	0	0	0	5,455

8: Riverside Av. & Slover Av.

	PHF:	0.881		7:00am					Count Date:		2/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**60**	**883**	**25**	**19**	**1,186**	**379**	**242**	**33**	**53**	**23**	**18**	**46**	**2,965**
EAP (2024):	62	944	26	19	1,275	394	252	34	55	24	18	48	3,152
EAPC (2024):	62	1,567	26	19	2,105	394	252	34	55	24	18	48	4,605

9: Riverside Av. & Santa Ana Av.

	PHF:	0.892		7:00am					Count Date:		2/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**45**	**771**	**54**	**61**	**1,050**	**82**	**85**	**1**	**37**	**53**	**9**	**70**	**2,316**
EAP (2024):	50	802	56	63	1,092	127	113	1	38	55	9	73	2,480
EAPC (2024):	52	1,412	56	63	1,885	164	126	1	38	55	9	73	3,935

Volume Development
PM Peak Hour

1: Driveway 1 & Santa Ana Av.

PHF: 0.948 4:00 Count Date: 7/20/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**0**	**0**	**0**	**3**	**0**	**5**	**0**	**161**	**0**	**0**	**108**	**6**	**283**
EAP (2024):	3	0	6	3	0	5	0	170	0	1	116	6	311
EAPC (2024):	3	0	6	3	0	5	0	172	0	1	122	6	319

2: Driveway 2 & Santa Ana Av.

PHF: 0.925 4:00 Count Date: 7/20/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**0**	**0**	**0**	**7**	**0**	**2**	**1**	**163**	**0**	**0**	**112**	**0**	**285**
EAP (2024):	4	0	22	7	0	2	1	175	3	16	118	0	348
EAPC (2024):	4	34	22	7	39	2	1	177	3	16	124	0	429

3: Lilac Av. & Santa Ana Av.

PHF: 0.915 4:00pm Count Date: 2/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**11**	**51**	**10**	**21**	**27**	**19**	**23**	**135**	**12**	**9**	**83**	**17**	**416**
EAP (2024):	11	53	25	22	28	19	23	168	12	22	103	18	506
EAPC (2024):	17	87	64	22	67	19	23	168	14	39	103	18	643

4: Lilac Av. & Driveway 3

PHF: 0.920 Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**0**	**72**	**0**	**0**	**48**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**120**
EAP (2024):	1	75	0	0	49	13	15	0	6	0	0	0	159
EAPC (2024):	1	154	0	0	107	13	15	0	6	0	0	0	296

5: Willow Av. & Santa Ana Av.

PHF: 0.929 4:00pm Count Date: 2/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**6**	**46**	**34**	**9**	**56**	**14**	**12**	**133**	**22**	**26**	**89**	**29**	**473**
EAP (2024):	6	48	35	9	58	15	12	181	22	27	122	30	565
EAPC (2024):	6	64	35	9	94	15	12	220	22	27	139	30	673

6: Riverside Av. & I-10 WB Ramps

PHF: 0.970 4:00pm Count Date: 2/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**333**	**1,344**	**0**	**0**	**898**	**395**	**0**	**0**	**0**	**416**	**0**	**482**	**3,868**
EAP (2024):	368	1,399	0	0	934	411	0	0	0	445	0	501	4,060
EAPC (2024):	680	1,652	0	0	1,284	635	0	0	0	681	0	552	5,486

7: Riverside Av. & I-10 EB Ramps

PHF: 0.959 4:00pm Count Date: 2/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**0**	**1,121**	**621**	**349**	**965**	**0**	**557**	**0**	**468**	**0**	**0**	**0**	**4,080**
EAP (2024):	0	1,190	663	363	1,016	0	579	0	503	0	0	0	4,314
EAPC (2024):	0	1,680	978	540	1,423	0	655	0	715	0	0	0	5,991

8: Riverside Av. & Slover Av.

PHF: 0.977 4:00pm Count Date: 2/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**43**	**1,304**	**6**	**32**	**1,094**	**307**	**357**	**126**	**130**	**35**	**28**	**81**	**3,541**
EAP (2024):	44	1,398	6	33	1,167	319	371	131	135	36	29	84	3,754
EAPC (2024):	44	2,203	6	33	1,787	319	371	131	135	36	29	84	5,179

9: Riverside Av. & Santa Ana Av.

PHF: 0.942 4:15pm Count Date: 2/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2022 PCE:	**63**	**1,145**	**44**	**53**	**1,153**	**61**	**96**	**24**	**56**	**47**	**19**	**88**	**2,847**
EAP (2024):	66	1,191	46	55	1,200	92	140	25	61	49	20	91	3,035
EAPC (2024):	66	1,959	46	55	1,803	109	177	25	63	49	20	91	4,462

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 1

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

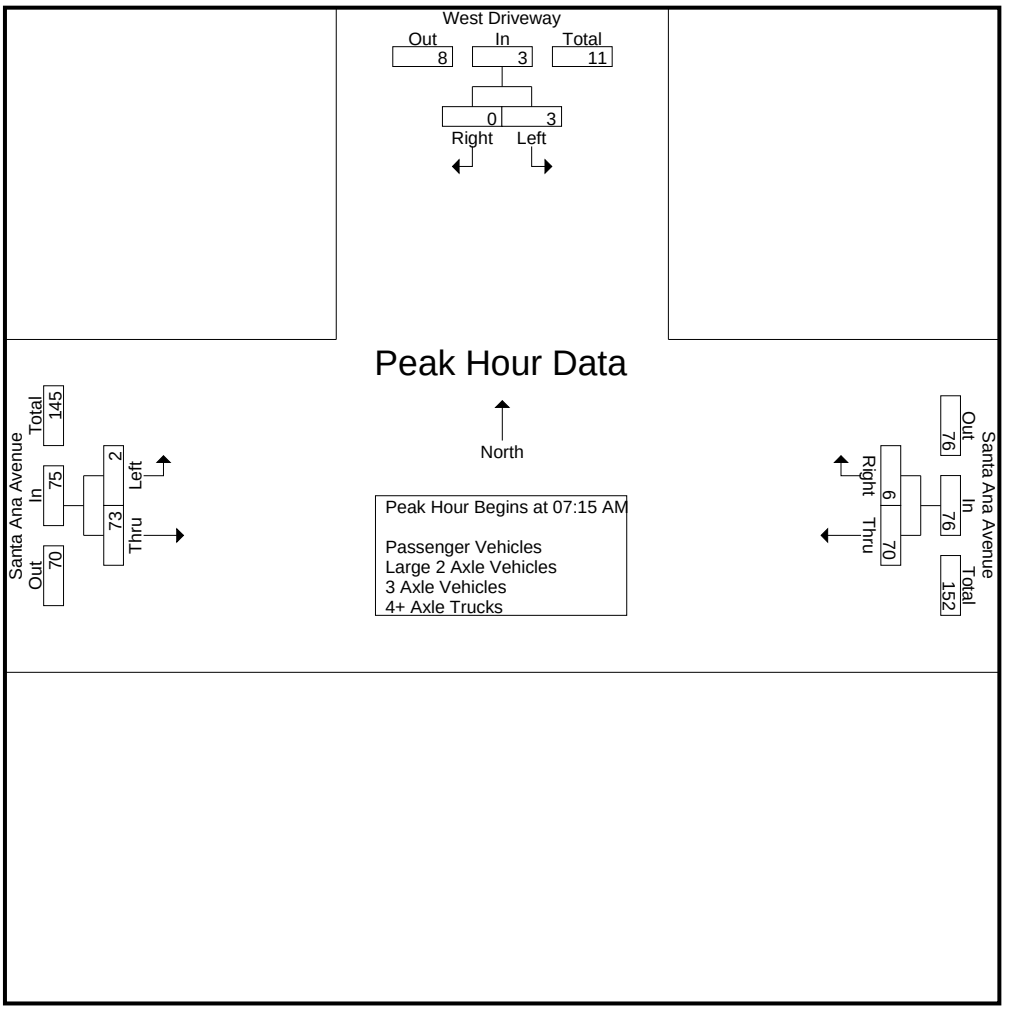
	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	2	1	3	11	0	11	0	18	18	32
07:15 AM	2	0	2	12	1	13	0	18	18	33
07:30 AM	0	0	0	13	4	17	2	23	25	42
07:45 AM	1	0	1	18	1	19	0	14	14	34
Total	5	1	6	54	6	60	2	73	75	141
08:00 AM	0	0	0	27	0	27	0	18	18	45
08:15 AM	1	1	2	15	0	15	0	13	13	30
08:30 AM	1	0	1	9	0	9	1	21	22	32
08:45 AM	1	1	2	14	4	18	0	13	13	33
Total	3	2	5	65	4	69	1	65	66	140
Grand Total	8	3	11	119	10	129	3	138	141	281
Apprch %	72.7	27.3		92.2	7.8		2.1	97.9		
Total %	2.8	1.1	3.9	42.3	3.6	45.9	1.1	49.1	50.2	
Passenger Vehicles	5	1	6	89	2	91	2	114	116	213
% Passenger Vehicles	62.5	33.3	54.5	74.8	20	70.5	66.7	82.6	82.3	75.8
Large 2 Axle Vehicles	1	0	1	10	1	11	0	11	11	23
% Large 2 Axle Vehicles	12.5	0	9.1	8.4	10	8.5	0	8	7.8	8.2
3 Axle Vehicles	0	0	0	4	0	4	1	2	3	7
% 3 Axle Vehicles	0	0	0	3.4	0	3.1	33.3	1.4	2.1	2.5
4+ Axle Trucks	2	2	4	16	7	23	0	11	11	38
% 4+ Axle Trucks	25	66.7	36.4	13.4	70	17.8	0	8	7.8	13.5

	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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 07:15 AM										
07:15 AM	**2**	0	**2**	12	1	13	0	18	18	33
07:30 AM	0	0	0	13	**4**	17	**2**	**23**	**25**	42
07:45 AM	1	0	1	18	1	19	0	14	14	34
08:00 AM	0	0	0	**27**	0	**27**	0	18	18	**45**
Total Volume	3	0	3	70	6	76	2	73	75	154
% App. Total	100	0		92.1	7.9		2.7	97.3		
PHF	.375	.000	.375	.648	.375	.704	.250	.793	.750	.856

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 2



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

	07:00 AM			07:30 AM			07:00 AM		
+0 mins.	**2**	**1**	**3**	13	**4**	17	0	18	18
+15 mins.	2	0	2	18	1	19	0	18	18
+30 mins.	0	0	0	**27**	0	**27**	**2**	**23**	**25**
+45 mins.	1	0	1	15	0	15	0	14	14
Total Volume	5	1	6	73	5	78	2	73	75
% App. Total	83.3	16.7		93.6	6.4		2.7	97.3	
PHF	.625	.250	.500	.676	.313	.722	.250	.793	.750

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022

Groups Printed- Large 2 Axle Vehicles

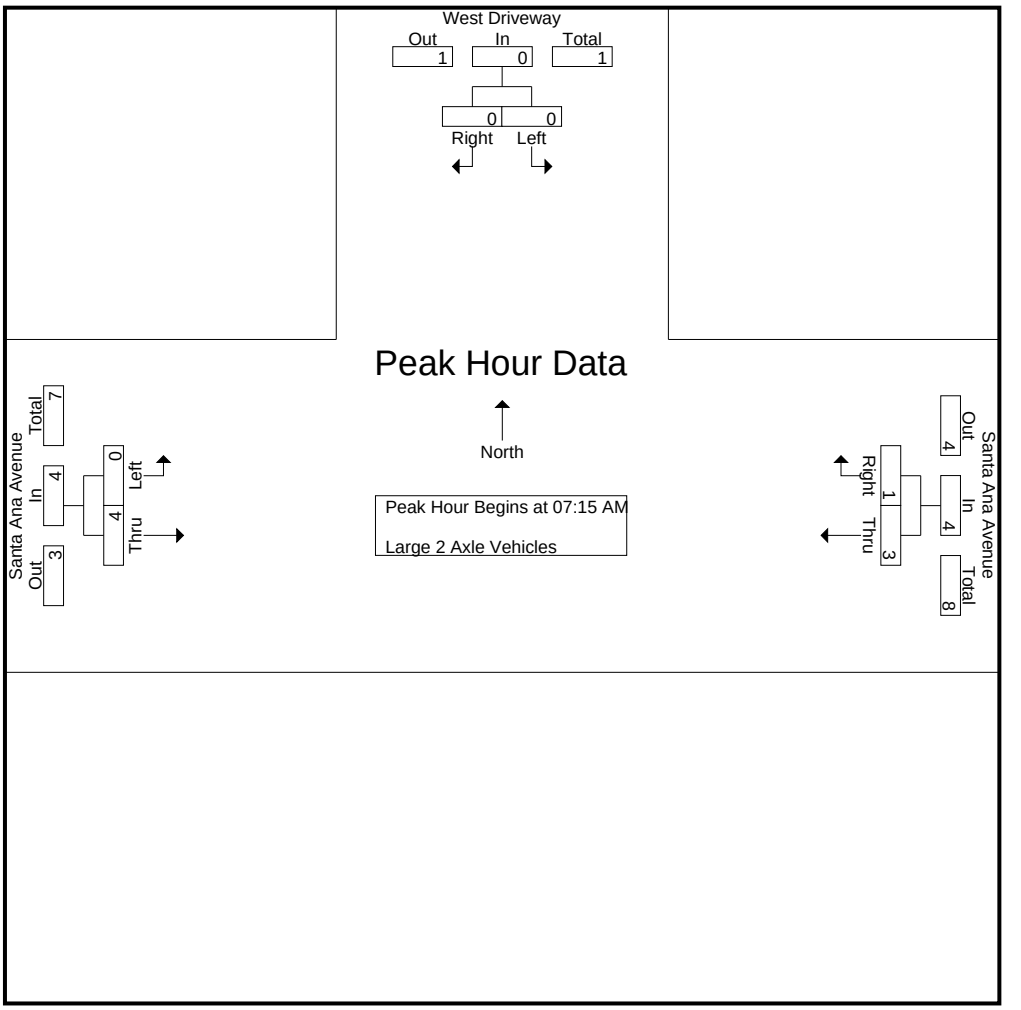
	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	1	0	1	0	1	1	2
07:15 AM	0	0	0	2	0	2	0	1	1	3
07:30 AM	0	0	0	0	1	1	0	3	3	4
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total	0	0	0	4	1	5	0	5	5	10
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	1	2	0	2	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	3	3	3
08:45 AM	0	0	0	4	0	4	0	3	3	7
Total	1	0	1	6	0	6	0	6	6	13
Grand Total	1	0	1	10	1	11	0	11	11	23
Apprch %	100	0		90.9	9.1		0	100		
Total %	4.3	0	4.3	43.5	4.3	47.8	0	47.8	47.8	

	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**2**	0	**2**	0	1	1	3
07:30 AM	0	0	0	0	**1**	1	0	**3**	**3**	**4**
07:45 AM	0	0	0	1	0	1	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	3	1	4	0	4	4	8
% App. Total	0	0		75	25		0	100		
PHF	.000	.000	.000	.375	.250	.500	.000	.333	.333	.500

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City of Rialto
N/S: West Driveway
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Weather: Clear

File Name : 02_RLT_West DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	**2**	0	**2**	0	1	1
+15 mins.	0	0	0	0	**1**	1	0	**3**	**3**
+30 mins.	0	0	0	1	0	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	3	1	4	0	4	4
% App. Total	0	0		75	25		0	100	
PHF	.000	.000	.000	.375	.250	.500	.000	.333	.333

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022

Groups Printed- 3 Axle Vehicles

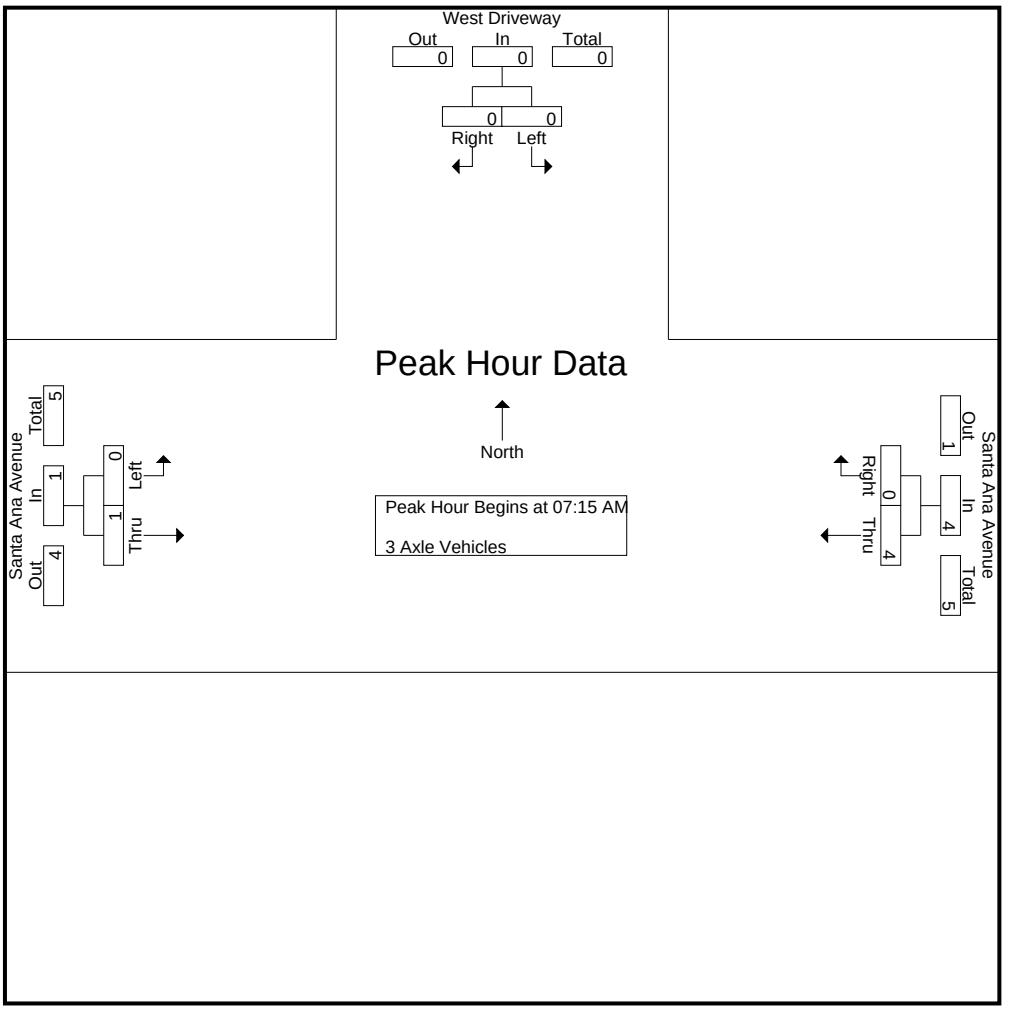
	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	0	0	0	2
08:00 AM	0	0	0	2	0	2	0	1	1	3
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	1	2	2
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	1	2	3	5
Grand Total	0	0	0	4	0	4	1	2	3	7
Apprch %	0	0		100	0		33.3	66.7		
Total %	0	0	0	57.1	0	57.1	14.3	28.6	42.9	

	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	**2**	0	**2**	0	**1**	**1**	**3**
Total Volume	0	0	0	4	0	4	0	1	1	5
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250	.417

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City of Rialto
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File Name : 02_RLT_West DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	**2**	0	**2**	0	**1**	**1**
Total Volume	0	0	0	4	0	4	0	1	1
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
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Groups Printed- 4+ Axle Trucks

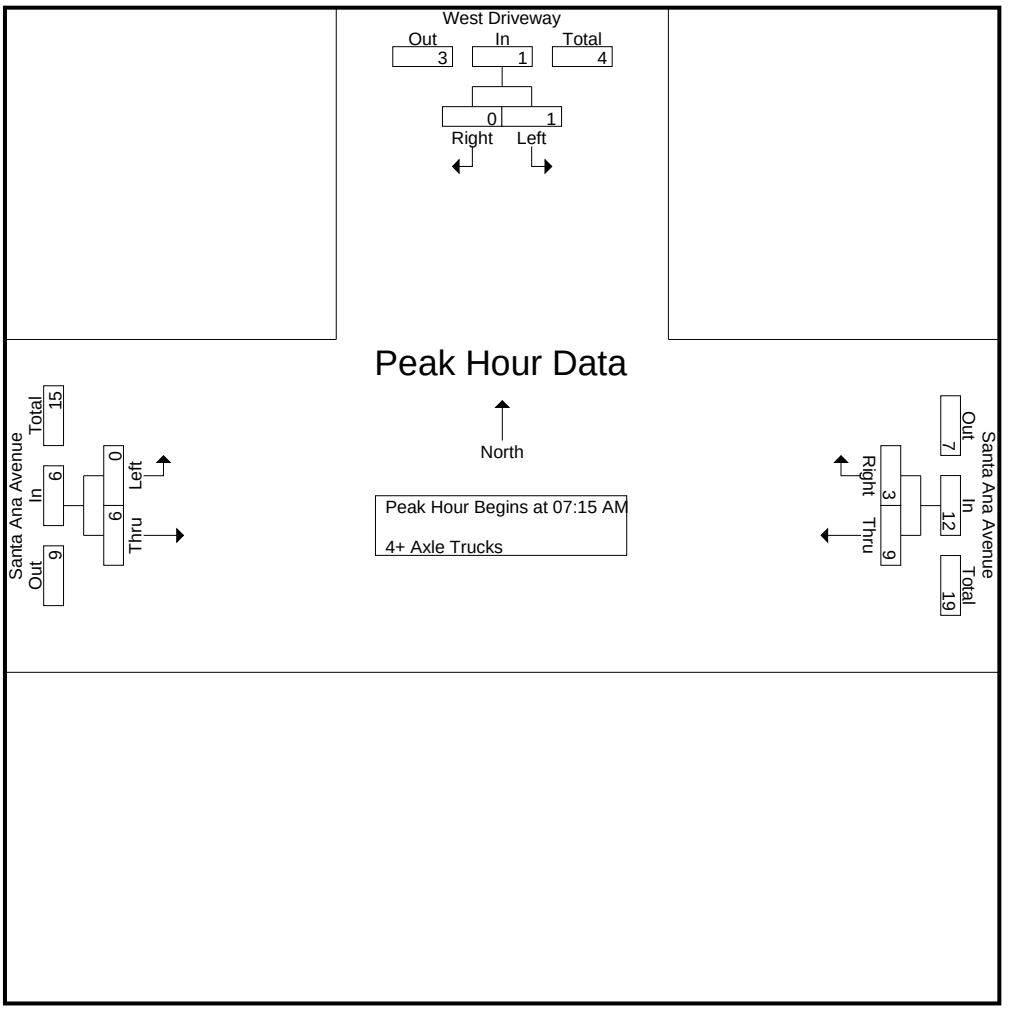
	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	3	0	3	0	2	2	5
07:15 AM	1	0	1	0	0	0	0	2	2	3
07:30 AM	0	0	0	0	2	2	0	3	3	5
07:45 AM	0	0	0	5	1	6	0	0	0	6
Total	1	0	1	8	3	11	0	7	7	19
08:00 AM	0	0	0	4	0	4	0	1	1	5
08:15 AM	0	1	1	3	0	3	0	1	1	5
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	1	2	1	4	5	0	2	2	9
Total	1	2	3	8	4	12	0	4	4	19
Grand Total	2	2	4	16	7	23	0	11	11	38
Apprch %	50	50		69.6	30.4		0	100		
Total %	5.3	5.3	10.5	42.1	18.4	60.5	0	28.9	28.9	

	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	**1**	0	**1**	0	0	0	0	2	2	3
07:30 AM	0	0	0	0	**2**	2	0	**3**	**3**	5
07:45 AM	0	0	0	**5**	1	**6**	0	0	0	**6**
08:00 AM	0	0	0	4	0	4	0	1	1	5
Total Volume	1	0	1	9	3	12	0	6	6	19
% App. Total	100	0		75	25		0	100		
PHF	.250	.000	.250	.450	.375	.500	.000	.500	.500	.792

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City of Rialto
N/S: West Driveway
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Weather: Clear

File Name : 02_RLT_West DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	**1**	0	**1**	0	0	0	0	2	2
+15 mins.	0	0	0	0	**2**	2	0	**3**	**3**
+30 mins.	0	0	0	**5**	1	**6**	0	0	0
+45 mins.	0	0	0	4	0	4	0	1	1
Total Volume	1	0	1	9	3	12	0	6	6
% App. Total	100	0		75	25		0	100	
PHF	.250	.000	.250	.450	.375	.500	.000	.500	.500

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
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File Name : 02_RLT_West DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

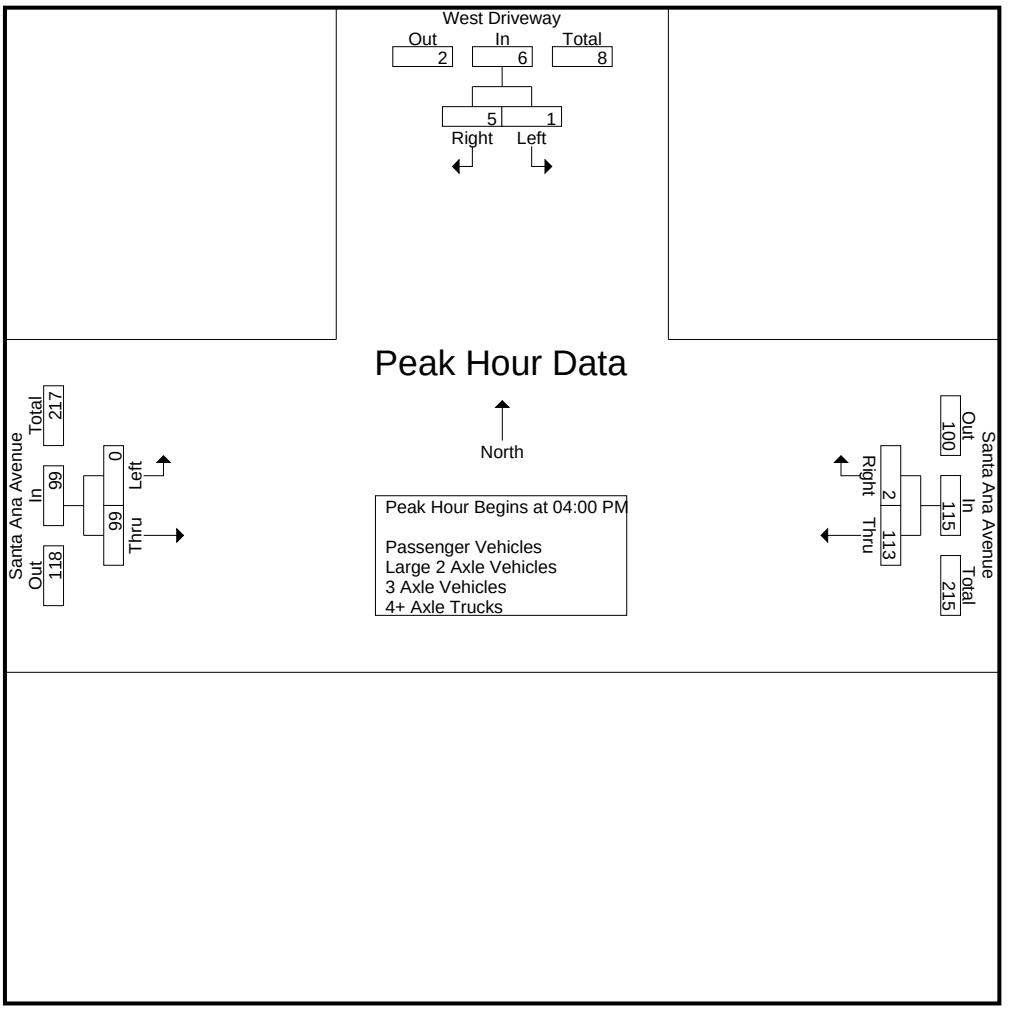
	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	1	1	36	2	38	0	19	19	58
04:15 PM	0	1	1	23	0	23	0	27	27	51
04:30 PM	1	3	4	29	0	29	0	25	25	58
04:45 PM	0	0	0	25	0	25	0	28	28	53
Total	1	5	6	113	2	115	0	99	99	220
05:00 PM	1	0	1	26	0	26	1	21	22	49
05:15 PM	0	0	0	24	0	24	0	12	12	36
05:30 PM	1	0	1	25	0	25	0	14	14	40
05:45 PM	0	0	0	19	0	19	0	16	16	35
Total	2	0	2	94	0	94	1	63	64	160
Grand Total	3	5	8	207	2	209	1	162	163	380
Apprch %	37.5	62.5		99	1		0.6	99.4		
Total %	0.8	1.3	2.1	54.5	0.5	55	0.3	42.6	42.9	
Passenger Vehicles	2	5	7	187	0	187	1	131	132	326
% Passenger Vehicles	66.7	100	87.5	90.3	0	89.5	100	80.9	81	85.8
Large 2 Axle Vehicles	0	0	0	3	0	3	0	8	8	11
% Large 2 Axle Vehicles	0	0	0	1.4	0	1.4	0	4.9	4.9	2.9
3 Axle Vehicles	0	0	0	3	0	3	0	8	8	11
% 3 Axle Vehicles	0	0	0	1.4	0	1.4	0	4.9	4.9	2.9
4+ Axle Trucks	1	0	1	14	2	16	0	15	15	32
% 4+ Axle Trucks	33.3	0	12.5	6.8	100	7.7	0	9.3	9.2	8.4

	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	0	1	1	**36**	**2**	**38**	0	19	19	**58**
04:15 PM	0	1	1	23	0	23	0	27	27	51
04:30 PM	**1**	**3**	**4**	29	0	29	0	25	25	58
04:45 PM	0	0	0	25	0	25	0	**28**	**28**	53
Total Volume	1	5	6	113	2	115	0	99	99	220
% App. Total	16.7	83.3		98.3	1.7		0	100		
PHF	.250	.417	.375	.785	.250	.757	.000	.884	.884	.948

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
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			04:00 PM			04:15 PM		
+0 mins.	0	1	1	**36**	**2**	**38**	0	27	27
+15 mins.	0	1	1	23	0	23	0	25	25
+30 mins.	**1**	**3**	**4**	29	0	29	0	**28**	**28**
+45 mins.	0	0	0	25	0	25	**1**	21	22
Total Volume	1	5	6	113	2	115	1	101	102
% App. Total	16.7	83.3		98.3	1.7		1	99	
PHF	.250	.417	.375	.785	.250	.757	.250	.902	.911

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City of Rialto
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File Name : 02_RLT_West DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
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Groups Printed- Large 2 Axle Vehicles

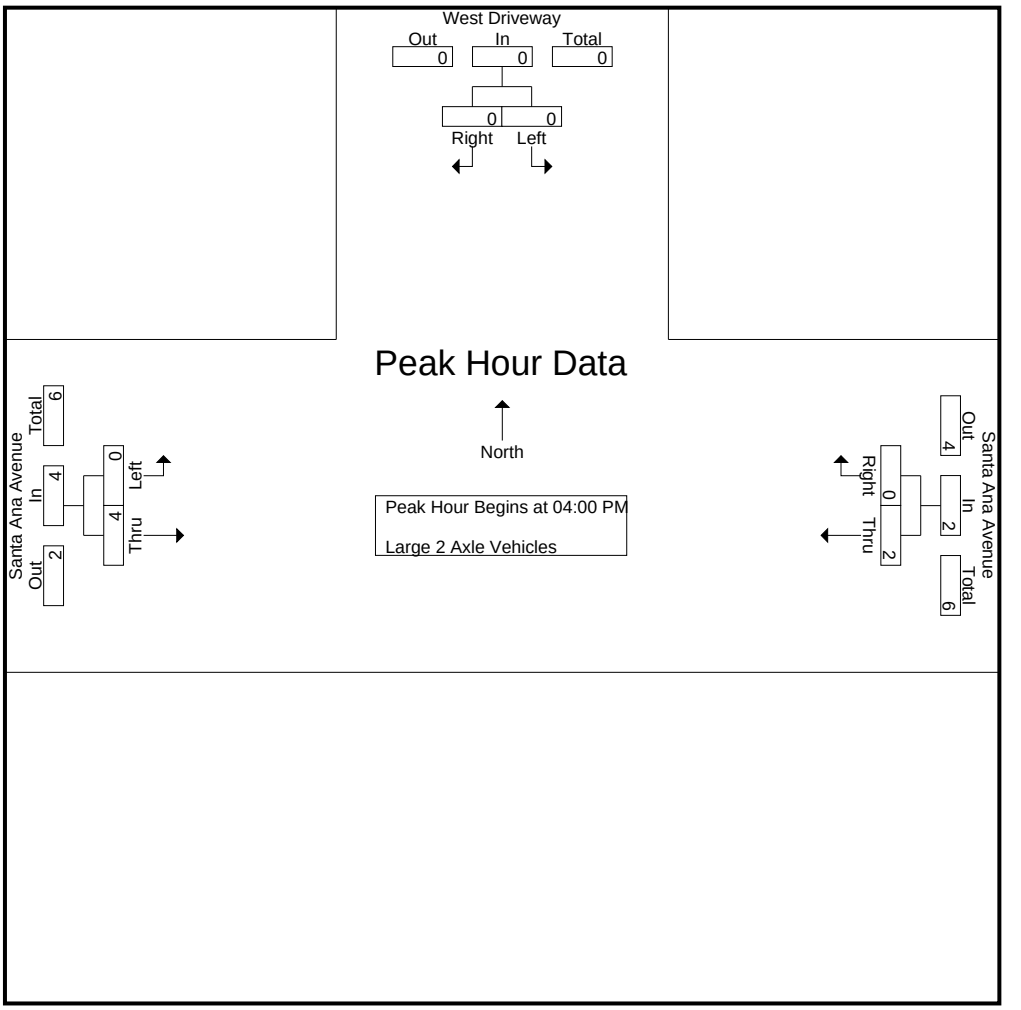
	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	1	1
04:15 PM	0	0	0	1	0	1	0	1	1	2
04:30 PM	0	0	0	1	0	1	0	2	2	3
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	0	4	4	6
05:00 PM	0	0	0	0	0	0	0	2	2	2
05:15 PM	0	0	0	0	0	0	0	1	1	1
05:30 PM	0	0	0	1	0	1	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	4	4	5
Grand Total	0	0	0	3	0	3	0	8	8	11
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	27.3	0	27.3	0	72.7	72.7	

	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	1	1	1
04:15 PM	0	0	0	**1**	0	**1**	0	1	1	2
04:30 PM	0	0	0	1	0	1	0	**2**	**2**	**3**
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	2	0	2	0	4	4	6
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.500	.500	.500

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 2



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		
+0 mins.	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	**1**	0	**1**	0	1	1
+30 mins.	0	0	0	1	0	1	0	**2**	**2**
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	2	0	2	0	4	4
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.500	.500

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

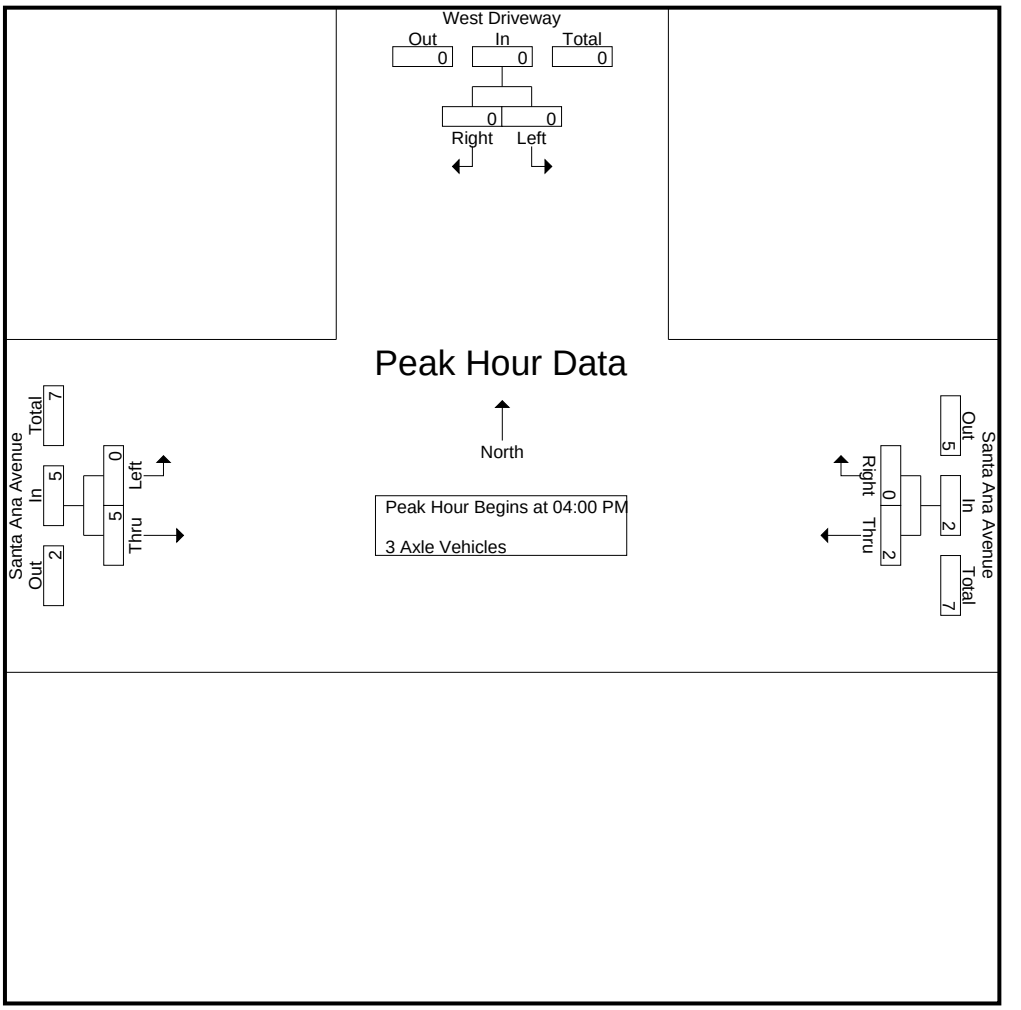
	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	2	0	2	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	2	2	2
04:45 PM	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	2	0	2	0	5	5	7
05:00 PM	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	1	0	1	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	1	0	1	0	3	3	4
Grand Total	0	0	0	3	0	3	0	8	8	11
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	27.3	0	27.3	0	72.7	72.7	

	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	**2**	0	**2**	0	0	0	**2**
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	**2**	**2**	2
04:45 PM	0	0	0	0	0	0	0	2	2	2
Total Volume	0	0	0	2	0	2	0	5	5	7
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.625	.625	.875

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 2



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		
+0 mins.	0	0	0	**2**	0	**2**	0	0	0
+15 mins.	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	**2**	**2**
+45 mins.	0	0	0	0	0	0	0	2	2
Total Volume	0	0	0	2	0	2	0	5	5
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.250	.000	.250	.000	.625	.625

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

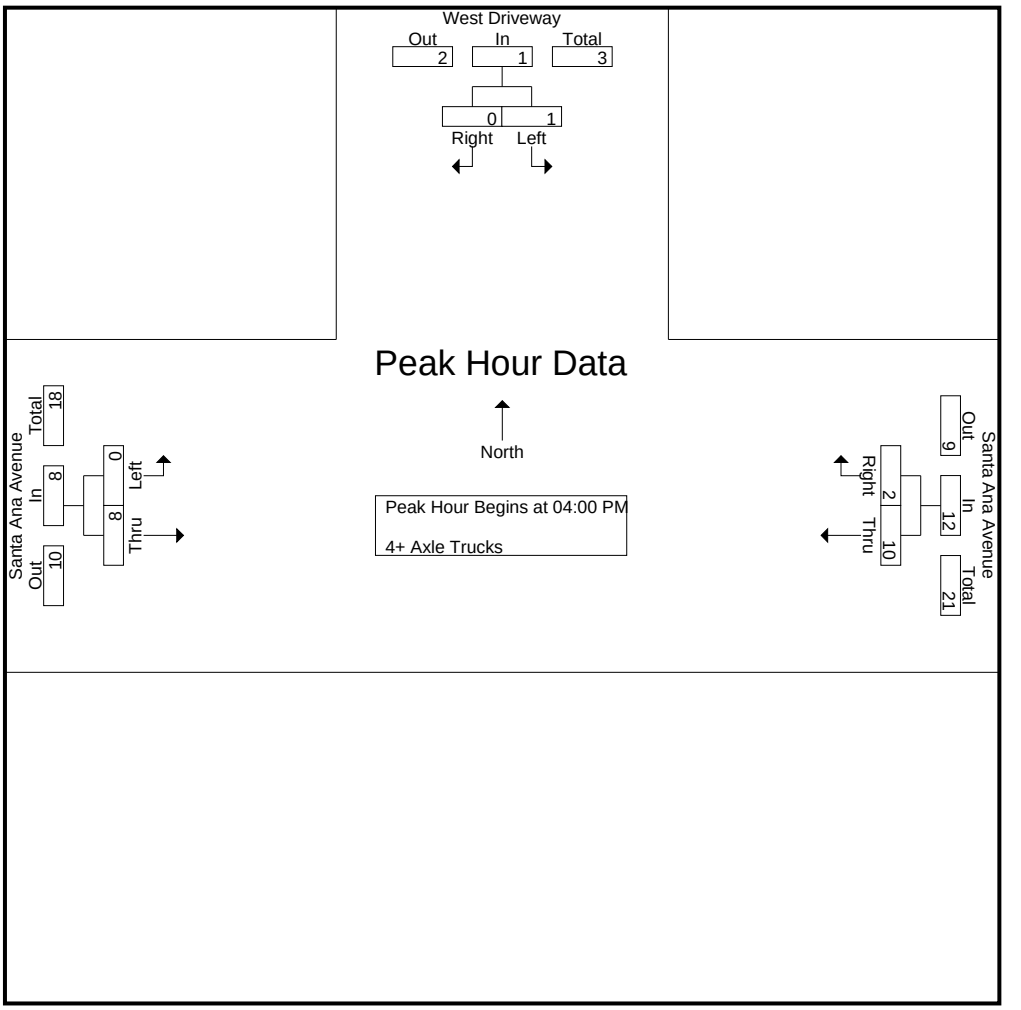
	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	4	2	6	0	1	1	7
04:15 PM	0	0	0	2	0	2	0	4	4	6
04:30 PM	1	0	1	3	0	3	0	1	1	5
04:45 PM	0	0	0	1	0	1	0	2	2	3
Total	1	0	1	10	2	12	0	8	8	21
05:00 PM	0	0	0	1	0	1	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	2	2	2
05:30 PM	0	0	0	1	0	1	0	2	2	3
05:45 PM	0	0	0	2	0	2	0	2	2	4
Total	0	0	0	4	0	4	0	7	7	11
Grand Total	1	0	1	14	2	16	0	15	15	32
Apprch %	100	0		87.5	12.5		0	100		
Total %	3.1	0	3.1	43.8	6.2	50	0	46.9	46.9	

	West Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	**4**	**2**	**6**	0	1	1	**7**
04:15 PM	0	0	0	2	0	2	0	**4**	**4**	6
04:30 PM	**1**	0	**1**	3	0	3	0	1	1	5
04:45 PM	0	0	0	1	0	1	0	2	2	3
Total Volume	1	0	1	10	2	12	0	8	8	21
% App. Total	100	0		83.3	16.7		0	100		
PHF	.250	.000	.250	.625	.250	.500	.000	.500	.500	.750

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City of Rialto
N/S: West Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 02_RLT_West DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 2



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		
+0 mins.	0	0	0	**4**	**2**	**6**	0	1	1
+15 mins.	0	0	0	2	0	2	0	**4**	**4**
+30 mins.	**1**	0	**1**	3	0	3	0	1	1
+45 mins.	0	0	0	1	0	1	0	2	2
Total Volume	1	0	1	10	2	12	0	8	8
% App. Total	100	0		83.3	16.7		0	100	
PHF	.250	.000	.250	.625	.250	.500	.000	.500	.500

Location: Rialto
N/S: West Driveway
E/W: Santa Ana Avenue

Date: 7/20/2022
Day: Wednesday

PEDESTRIANS

	North Leg West Driveway	East Leg Santa Ana Avenue	South Leg West Driveway	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

	North Leg West Driveway	East Leg Santa Ana Avenue	South Leg West Driveway	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	2	0	0	0	2
TOTAL VOLUMES:	2	0	0	0	2

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Location: Rialto
N/S: West Driveway
E/W: Santa Ana Avenue

Date: 7/20/2022
Day: Wednesday

BICYCLES

	Southbound West Driveway			Westbound Santa Ana Avenue			Northbound West Driveway			Eastbound Santa Ana Avenue			
	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	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	0	0	0	0	0	0	0	0	0

	Southbound West Driveway			Westbound Santa Ana Avenue			Northbound West Driveway			Eastbound Santa Ana 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	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 1

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

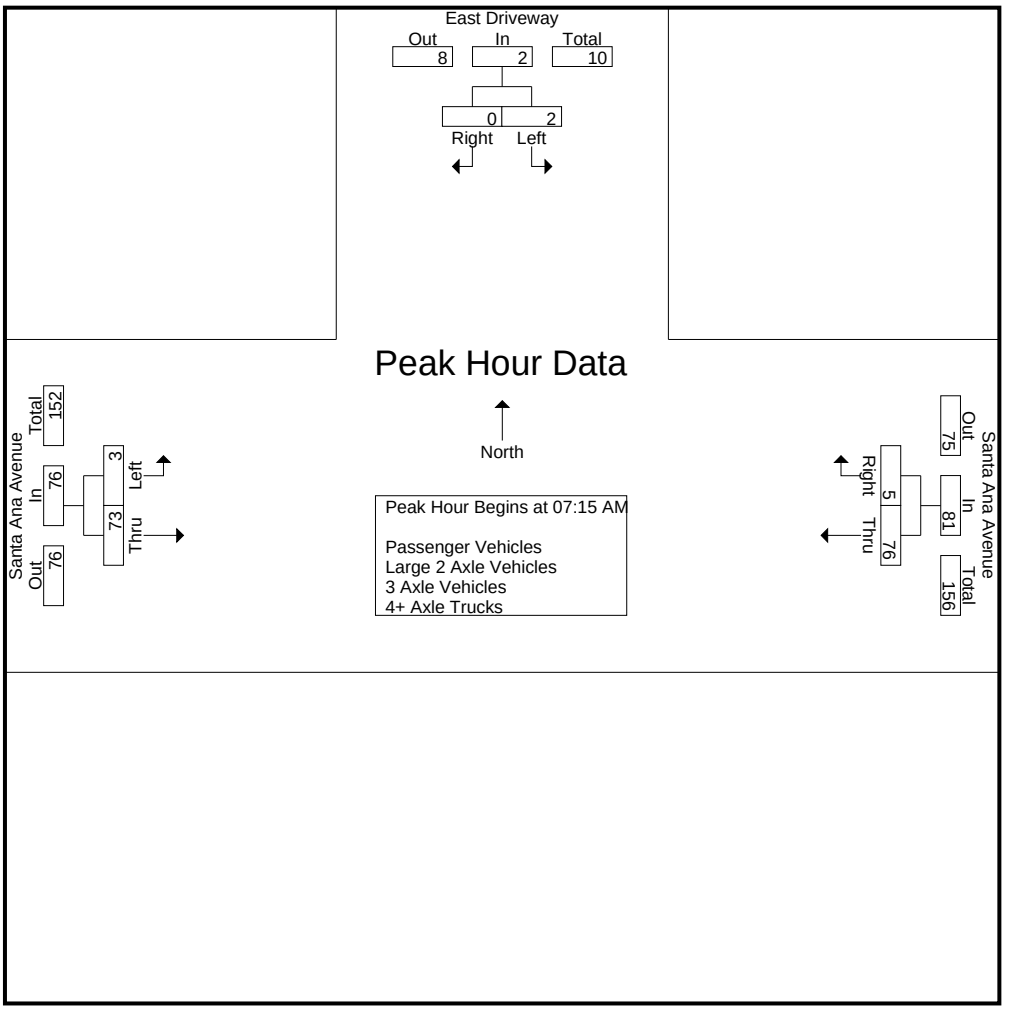
	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	9	1	10	0	20	20	30
07:15 AM	1	0	1	13	1	14	0	20	20	35
07:30 AM	0	0	0	17	1	18	2	21	23	41
07:45 AM	1	0	1	19	1	20	0	15	15	36
Total	2	0	2	58	4	62	2	76	78	142
08:00 AM	0	0	0	27	2	29	1	17	18	47
08:15 AM	0	0	0	15	3	18	0	14	14	32
08:30 AM	0	0	0	10	0	10	0	22	22	32
08:45 AM	0	0	0	18	0	18	0	15	15	33
Total	0	0	0	70	5	75	1	68	69	144
Grand Total	2	0	2	128	9	137	3	144	147	286
Apprch %	100	0		93.4	6.6		2	98		
Total %	0.7	0	0.7	44.8	3.1	47.9	1	50.3	51.4	
Passenger Vehicles	2	0	2	88	9	97	3	117	120	219
% Passenger Vehicles	100	0	100	68.8	100	70.8	100	81.2	81.6	76.6
Large 2 Axle Vehicles	0	0	0	13	0	13	0	12	12	25
% Large 2 Axle Vehicles	0	0	0	10.2	0	9.5	0	8.3	8.2	8.7
3 Axle Vehicles	0	0	0	4	0	4	0	2	2	6
% 3 Axle Vehicles	0	0	0	3.1	0	2.9	0	1.4	1.4	2.1
4+ Axle Trucks	0	0	0	23	0	23	0	13	13	36
% 4+ Axle Trucks	0	0	0	18	0	16.8	0	9	8.8	12.6

	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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 07:15 AM										
07:15 AM	**1**	0	**1**	13	1	14	0	20	20	35
07:30 AM	0	0	0	17	1	18	**2**	**21**	**23**	41
07:45 AM	1	0	1	19	1	20	0	15	15	36
08:00 AM	0	0	0	**27**	**2**	**29**	1	17	18	**47**
Total Volume	2	0	2	76	5	81	3	73	76	159
% App. Total	100	0		93.8	6.2		3.9	96.1		
PHF	.500	.000	.500	.704	.625	.698	.375	.869	.826	.846

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 2



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

	07:00 AM			07:30 AM			07:00 AM		
+0 mins.	0	0	0	17	1	18	0	20	20
+15 mins.	**1**	0	**1**	19	1	20	0	20	20
+30 mins.	0	0	0	**27**	2	**29**	**2**	**21**	**23**
+45 mins.	1	0	1	15	**3**	18	0	15	15
Total Volume	2	0	2	78	7	85	2	76	78
% App. Total	100	0		91.8	8.2		2.6	97.4	
PHF	.500	.000	.500	.722	.583	.733	.250	.905	.848

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

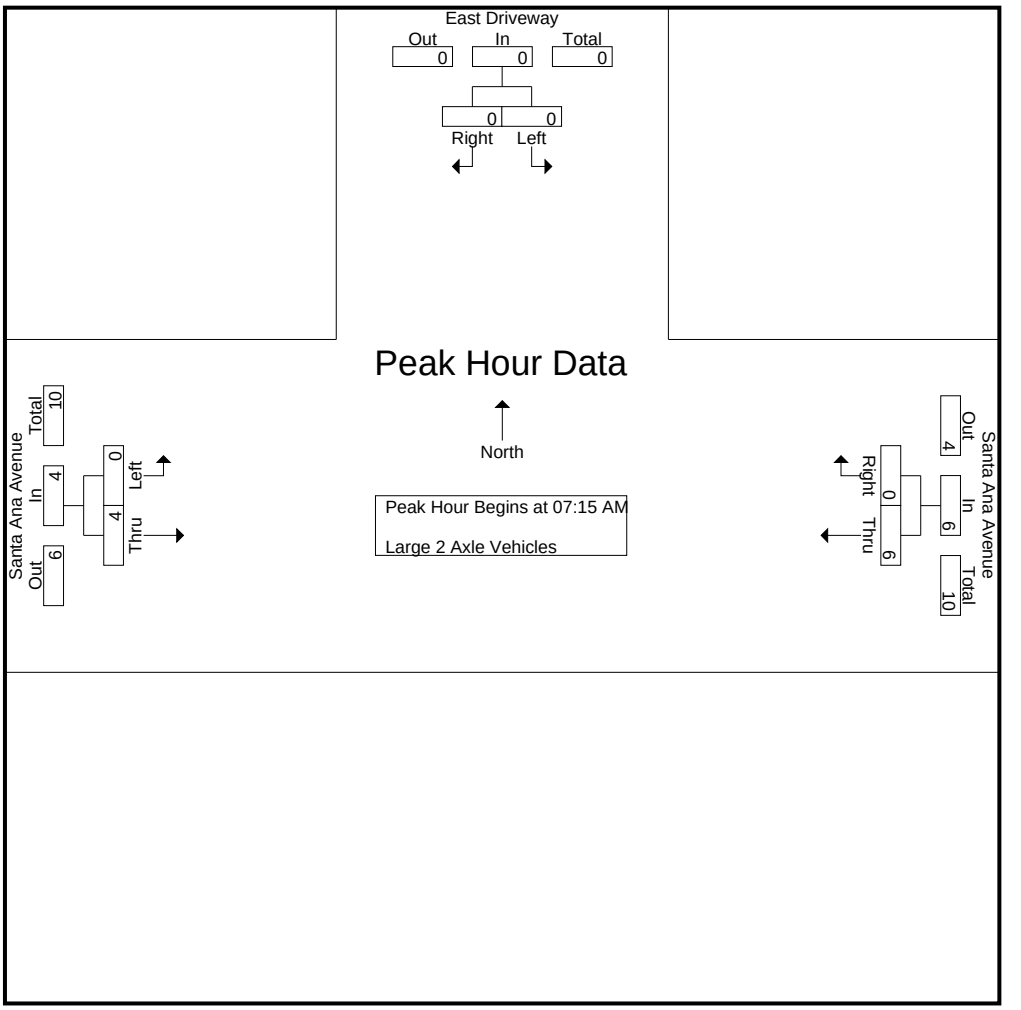
	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	1	0	1	0	1	1	2
07:15 AM	0	0	0	3	0	3	0	1	1	4
07:30 AM	0	0	0	2	0	2	0	3	3	5
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total	0	0	0	7	0	7	0	5	5	12
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	2	0	2	0	1	1	3
08:30 AM	0	0	0	0	0	0	0	3	3	3
08:45 AM	0	0	0	4	0	4	0	3	3	7
Total	0	0	0	6	0	6	0	7	7	13
Grand Total	0	0	0	13	0	13	0	12	12	25
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	52	0	52	0	48	48	

	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**3**	0	**3**	0	1	1	4
07:30 AM	0	0	0	2	0	2	0	**3**	**3**	**5**
07:45 AM	0	0	0	1	0	1	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	6	0	6	0	4	4	10
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.333	.333	.500

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	**3**	0	**3**	0	1	1
+15 mins.	0	0	0	2	0	2	0	**3**	**3**
+30 mins.	0	0	0	1	0	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	6	0	6	0	4	4
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.333	.333

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

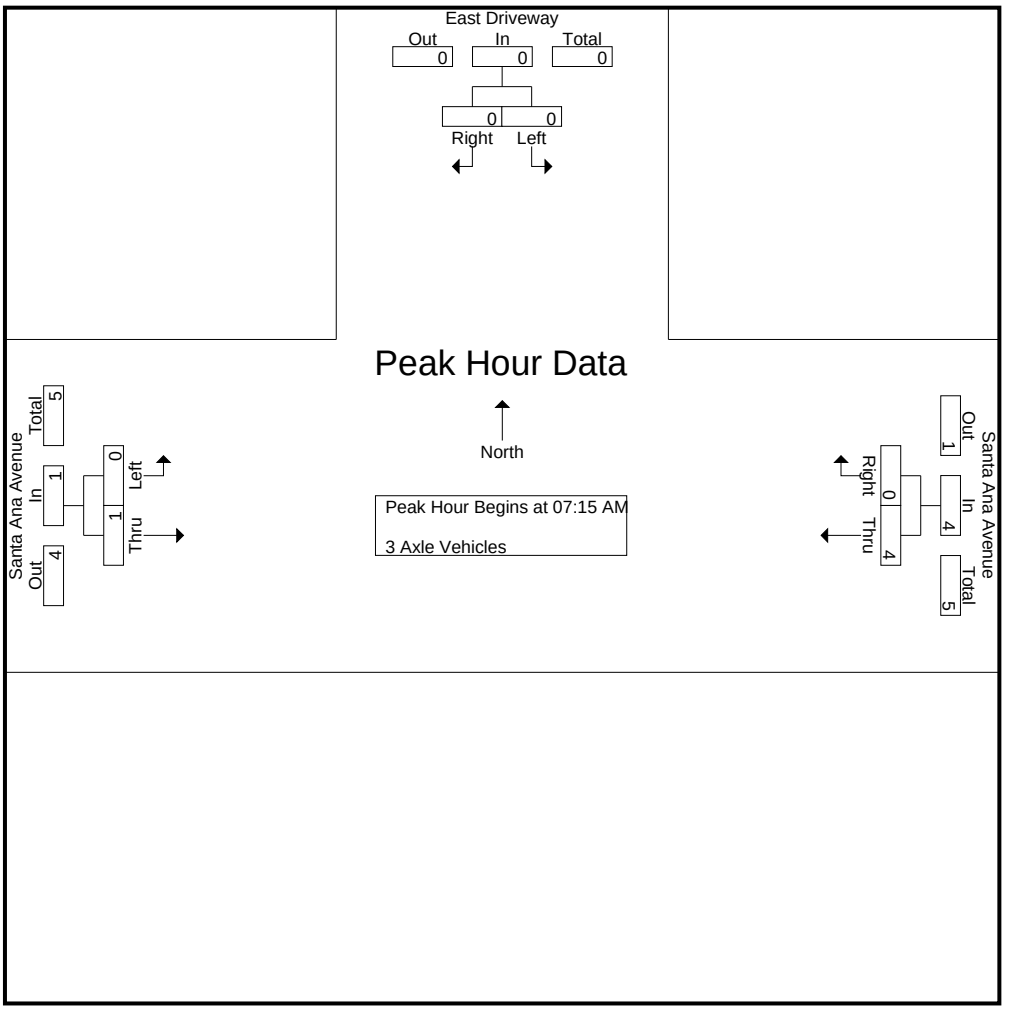
	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	0	0	0	2
08:00 AM	0	0	0	2	0	2	0	1	1	3
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	0	2	2	4
Grand Total	0	0	0	4	0	4	0	2	2	6
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	66.7	0	66.7	0	33.3	33.3	

	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	**2**	0	**2**	0	**1**	**1**	**3**
Total Volume	0	0	0	4	0	4	0	1	1	5
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250	.417

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	**2**	0	**2**	0	**1**	**1**
Total Volume	0	0	0	4	0	4	0	1	1
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

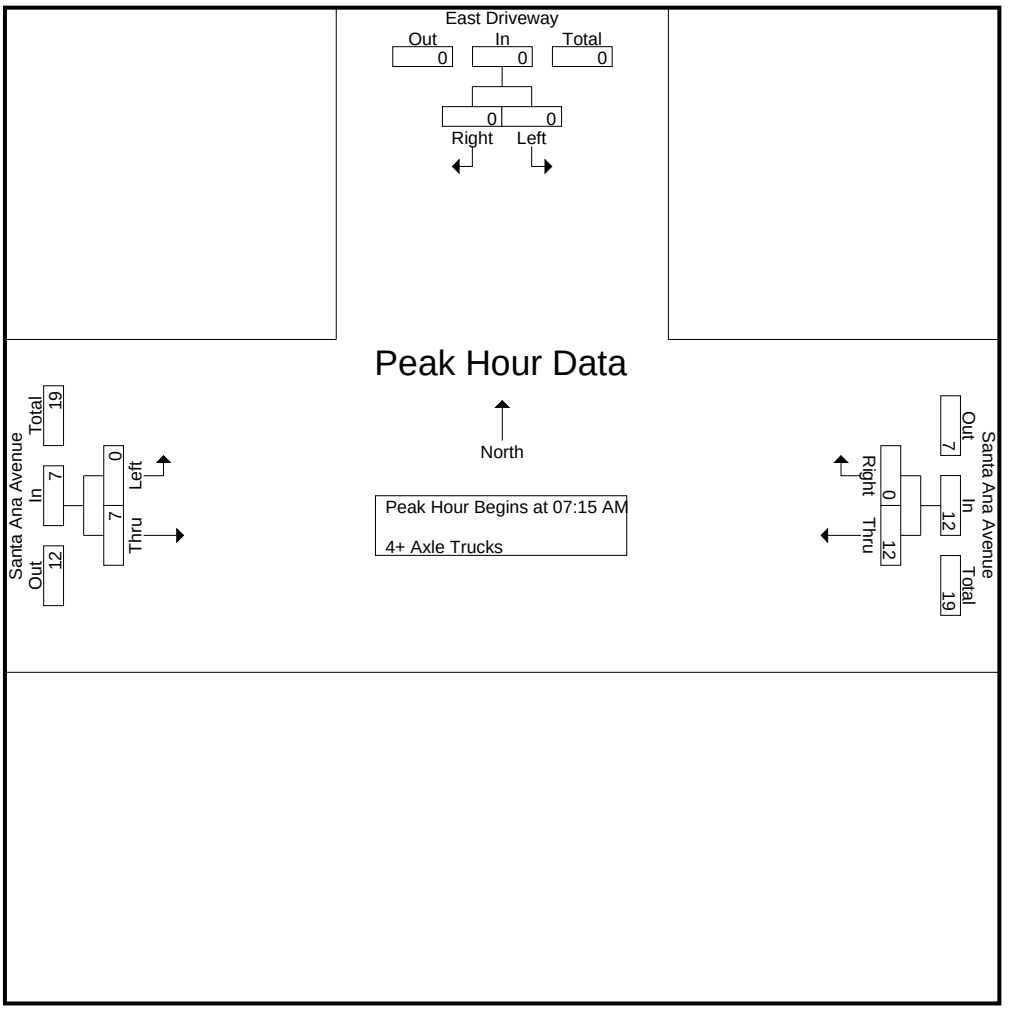
	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	2	0	2	0	2	2	4
07:15 AM	0	0	0	0	0	0	0	3	3	3
07:30 AM	0	0	0	2	0	2	0	3	3	5
07:45 AM	0	0	0	6	0	6	0	0	0	6
Total	0	0	0	10	0	10	0	8	8	18
08:00 AM	0	0	0	4	0	4	0	1	1	5
08:15 AM	0	0	0	3	0	3	0	1	1	4
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	6	0	6	0	3	3	9
Total	0	0	0	13	0	13	0	5	5	18
Grand Total	0	0	0	23	0	23	0	13	13	36
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	63.9	0	63.9	0	36.1	36.1	

	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	0	**3**	**3**	3
07:30 AM	0	0	0	2	0	2	0	3	3	5
07:45 AM	0	0	0	**6**	0	**6**	0	0	0	**6**
08:00 AM	0	0	0	4	0	4	0	1	1	5
Total Volume	0	0	0	12	0	12	0	7	7	19
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.583	.583	.792

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana AM
Site Code : 05122662
Start Date : 7/20/2022
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	0	0	0	0	**3**	**3**
+15 mins.	0	0	0	2	0	2	0	3	3
+30 mins.	0	0	0	**6**	0	**6**	0	0	0
+45 mins.	0	0	0	4	0	4	0	1	1
Total Volume	0	0	0	12	0	12	0	7	7
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.583	.583

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 1

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

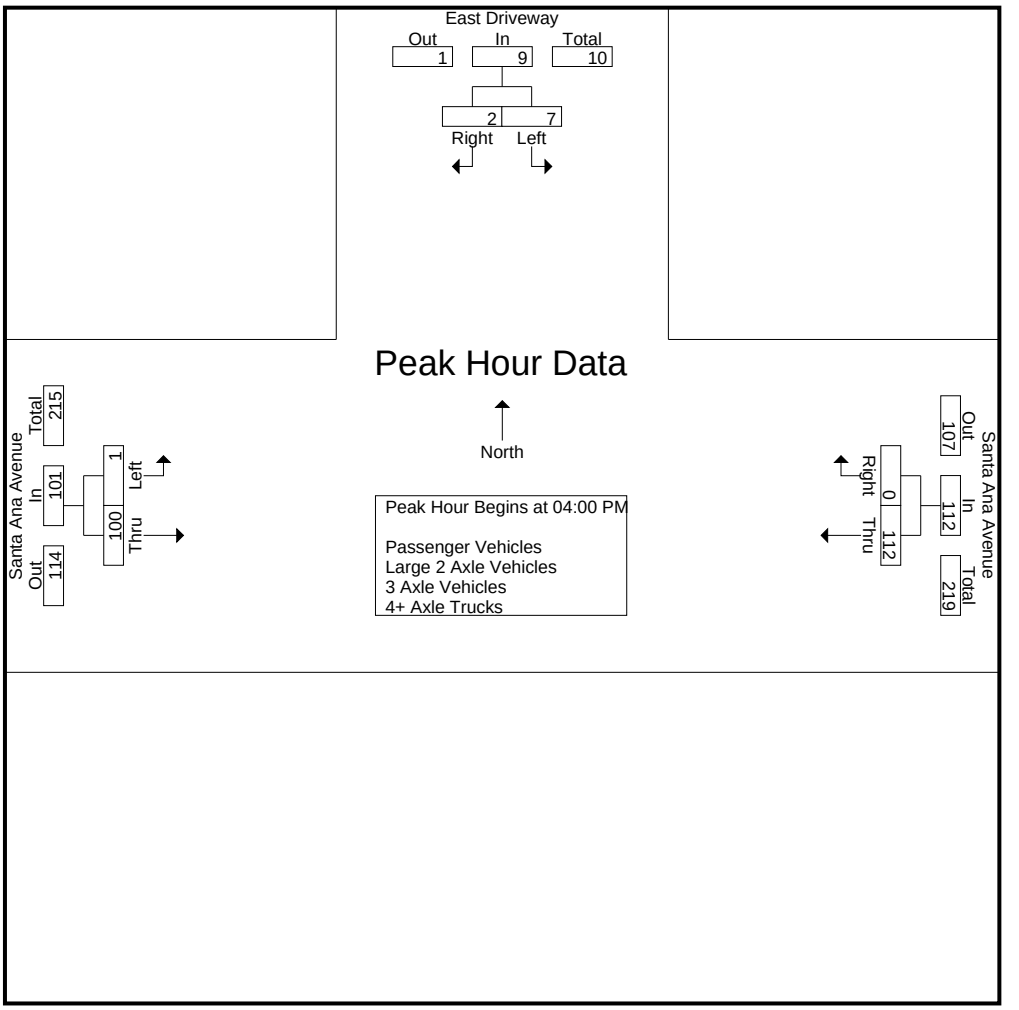
	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	2	1	3	37	0	37	0	20	20	60
04:15 PM	1	0	1	22	0	22	0	27	27	50
04:30 PM	4	1	5	28	0	28	1	25	26	59
04:45 PM	0	0	0	25	0	25	0	28	28	53
Total	7	2	9	112	0	112	1	100	101	222
05:00 PM	0	0	0	26	1	27	0	23	23	50
05:15 PM	0	0	0	24	1	25	0	12	12	37
05:30 PM	1	0	1	25	0	25	0	15	15	41
05:45 PM	0	0	0	19	0	19	0	16	16	35
Total	1	0	1	94	2	96	0	66	66	163
Grand Total	8	2	10	206	2	208	1	166	167	385
Apprch %	80	20		99	1		0.6	99.4		
Total %	2.1	0.5	2.6	53.5	0.5	54	0.3	43.1	43.4	
Passenger Vehicles	8	2	10	184	2	186	1	134	135	331
% Passenger Vehicles	100	100	100	89.3	100	89.4	100	80.7	80.8	86
Large 2 Axle Vehicles	0	0	0	3	0	3	0	8	8	11
% Large 2 Axle Vehicles	0	0	0	1.5	0	1.4	0	4.8	4.8	2.9
3 Axle Vehicles	0	0	0	3	0	3	0	8	8	11
% 3 Axle Vehicles	0	0	0	1.5	0	1.4	0	4.8	4.8	2.9
4+ Axle Trucks	0	0	0	16	0	16	0	16	16	32
% 4+ Axle Trucks	0	0	0	7.8	0	7.7	0	9.6	9.6	8.3

	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	2	**1**	3	**37**	0	**37**	0	20	20	**60**
04:15 PM	1	0	1	22	0	22	0	27	27	50
04:30 PM	**4**	1	**5**	28	0	28	**1**	25	26	59
04:45 PM	0	0	0	25	0	25	0	**28**	**28**	53
Total Volume	7	2	9	112	0	112	1	100	101	222
% App. Total	77.8	22.2		100	0		1	99		
PHF	.438	.500	.450	.757	.000	.757	.250	.893	.902	.925

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana PM
Site Code : 05122662
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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			04:00 PM			04:15 PM		
+0 mins.	2	**1**	3	**37**	0	**37**	0	27	27
+15 mins.	1	0	1	22	0	22	**1**	25	26
+30 mins.	**4**	1	**5**	28	0	28	0	**28**	**28**
+45 mins.	0	0	0	25	0	25	0	23	23
Total Volume	7	2	9	112	0	112	1	103	104
% App. Total	77.8	22.2		100	0		1	99	
PHF	.438	.500	.450	.757	.000	.757	.250	.920	.929

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

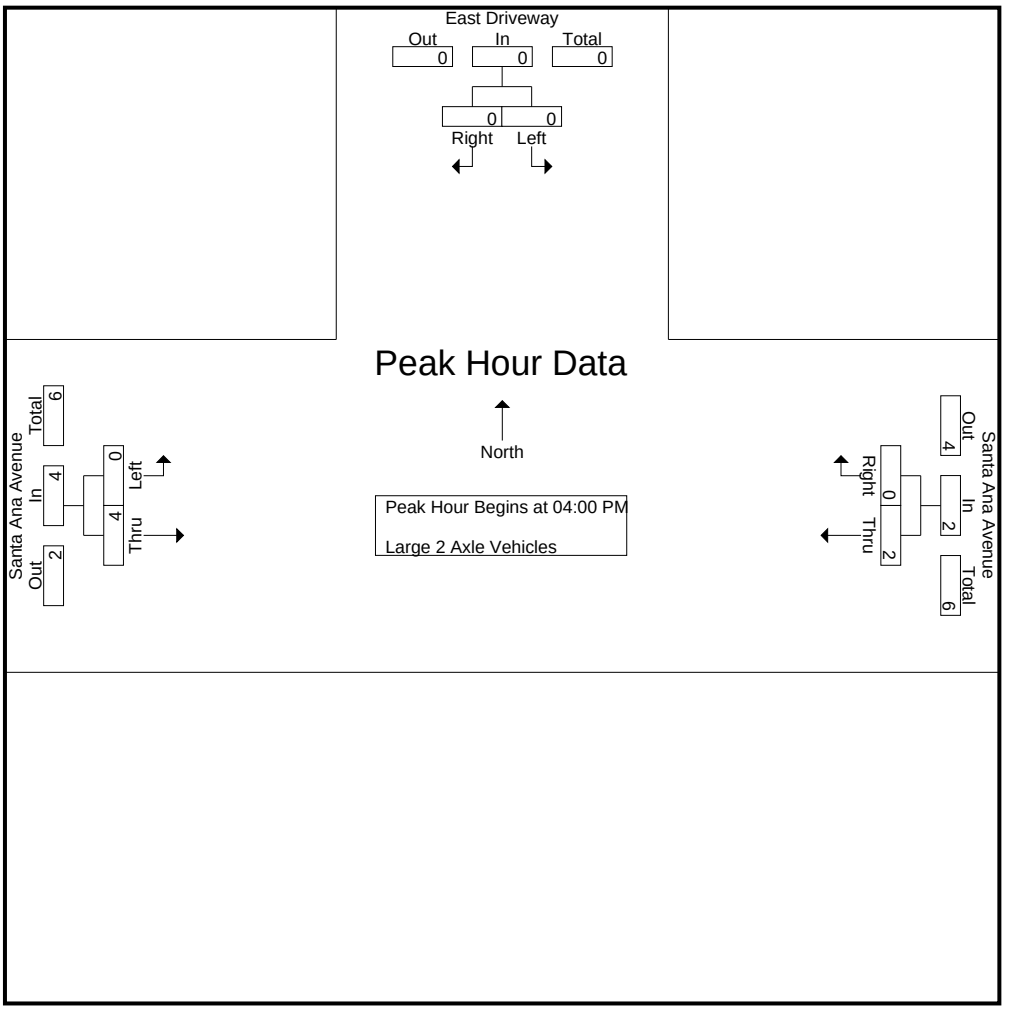
	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	1	1
04:15 PM	0	0	0	1	0	1	0	1	1	2
04:30 PM	0	0	0	1	0	1	0	2	2	3
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	0	4	4	6
05:00 PM	0	0	0	0	0	0	0	2	2	2
05:15 PM	0	0	0	0	0	0	0	1	1	1
05:30 PM	0	0	0	1	0	1	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	4	4	5
Grand Total	0	0	0	3	0	3	0	8	8	11
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	27.3	0	27.3	0	72.7	72.7	

	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	1	1	1
04:15 PM	0	0	0	**1**	0	**1**	0	1	1	2
04:30 PM	0	0	0	1	0	1	0	**2**	**2**	**3**
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	2	0	2	0	4	4	6
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.500	.500	.500

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana PM
Site Code : 05122662
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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		
+0 mins.	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	**1**	0	**1**	0	1	1
+30 mins.	0	0	0	1	0	1	0	**2**	**2**
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	2	0	2	0	4	4
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.500	.500

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana PM
Site Code : 05122662
Start Date : 7/20/2022
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Groups Printed- 3 Axle Vehicles

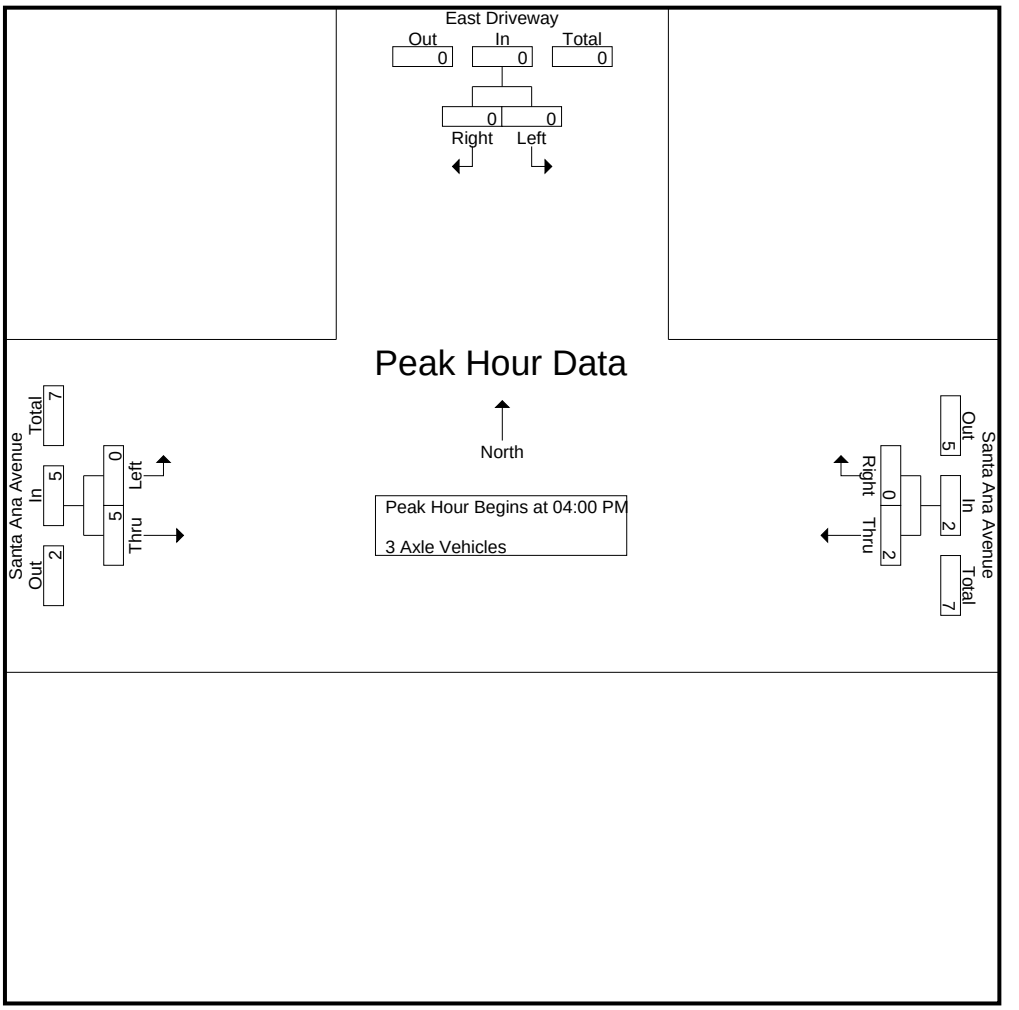
	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	2	0	2	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	2	2	2
04:45 PM	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	2	0	2	0	5	5	7
05:00 PM	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	1	0	1	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	1	0	1	0	3	3	4
Grand Total	0	0	0	3	0	3	0	8	8	11
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	27.3	0	27.3	0	72.7	72.7	

	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	**2**	0	**2**	0	0	0	**2**
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	**2**	**2**	2
04:45 PM	0	0	0	0	0	0	0	2	2	2
Total Volume	0	0	0	2	0	2	0	5	5	7
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.625	.625	.875

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City of Rialto
N/S: East Driveway
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Weather: Clear

File Name : 03_RLT_East DW_Santa Ana PM
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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		
+0 mins.	0	0	0	**2**	0	**2**	0	0	0
+15 mins.	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	**2**	**2**
+45 mins.	0	0	0	0	0	0	0	2	2
Total Volume	0	0	0	2	0	2	0	5	5
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.250	.000	.250	.000	.625	.625

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana PM
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Groups Printed- 4+ Axle Trucks

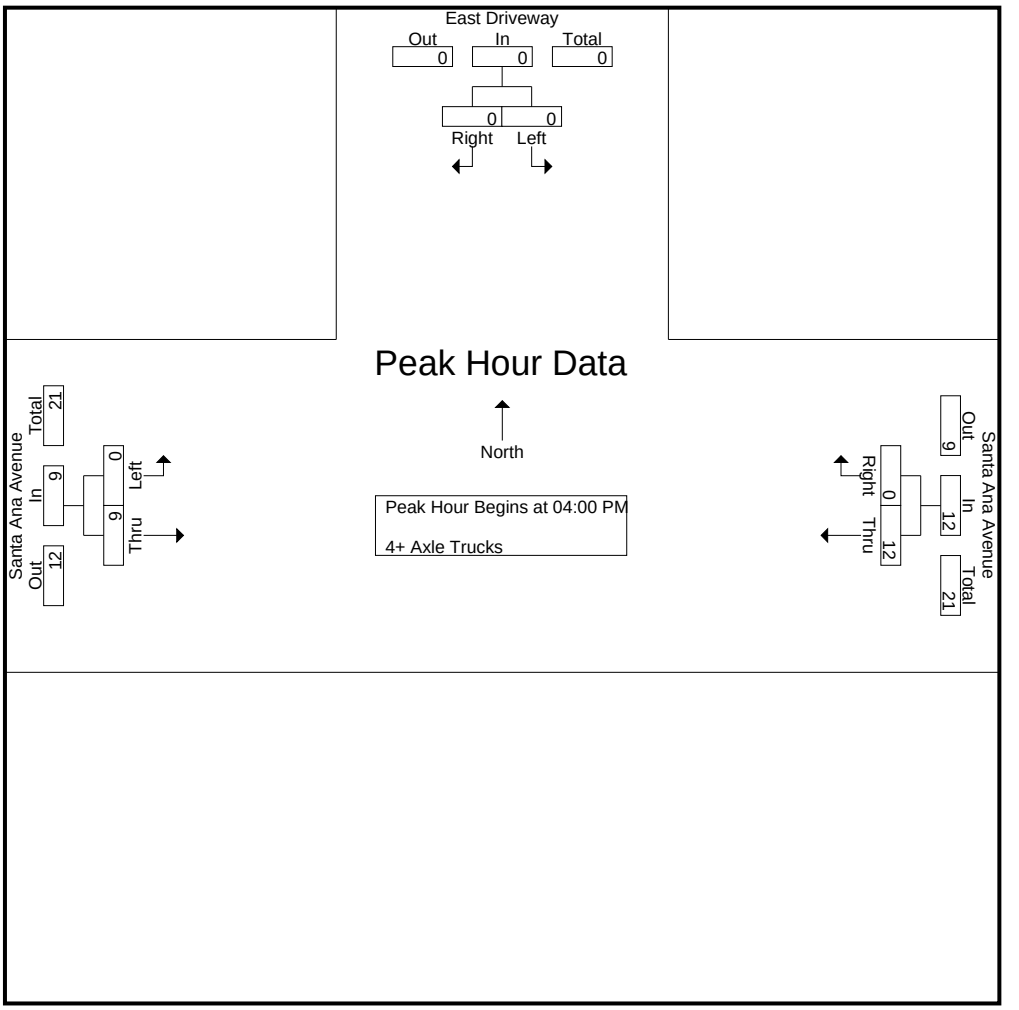
	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	6	0	6	0	1	1	7
04:15 PM	0	0	0	2	0	2	0	4	4	6
04:30 PM	0	0	0	3	0	3	0	2	2	5
04:45 PM	0	0	0	1	0	1	0	2	2	3
Total	0	0	0	12	0	12	0	9	9	21
05:00 PM	0	0	0	1	0	1	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	2	2	2
05:30 PM	0	0	0	1	0	1	0	2	2	3
05:45 PM	0	0	0	2	0	2	0	2	2	4
Total	0	0	0	4	0	4	0	7	7	11
Grand Total	0	0	0	16	0	16	0	16	16	32
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	50	0	50	0	50	50	

	East Driveway Southbound			Santa Ana Avenue Westbound			Santa Ana Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	**6**	0	**6**	0	1	1	**7**
04:15 PM	0	0	0	2	0	2	0	**4**	**4**	6
04:30 PM	0	0	0	3	0	3	0	2	2	5
04:45 PM	0	0	0	1	0	1	0	2	2	3
Total Volume	0	0	0	12	0	12	0	9	9	21
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.563	.563	.750

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City of Rialto
N/S: East Driveway
E/W: Santa Ana Avenue
Weather: Clear

File Name : 03_RLT_East DW_Santa Ana PM
Site Code : 05122662
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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		
+0 mins.	0	0	0	**6**	0	**6**	0	1	1
+15 mins.	0	0	0	2	0	2	0	**4**	**4**
+30 mins.	0	0	0	3	0	3	0	2	2
+45 mins.	0	0	0	1	0	1	0	2	2
Total Volume	0	0	0	12	0	12	0	9	9
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.563	.563

Location: Rialto
N/S: East Driveway
E/W: Santa Ana Avenue

Date: 7/20/2022
Day: Wednesday

PEDESTRIANS

	North Leg East Driveway	East Leg Santa Ana Avenue	South Leg East Driveway	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	1	0	0	0	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

	North Leg East Driveway	East Leg Santa Ana Avenue	South Leg East Driveway	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Rialto
N/S: East Driveway
E/W: Santa Ana Avenue

Date: 7/20/2022
Day: Wednesday

BICYCLES

	Southbound East Driveway			Westbound Santa Ana Avenue			Northbound East Driveway			Eastbound Santa Ana Avenue			
	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	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	0	0	0	0	0	0	0	0	0

	Southbound East Driveway			Westbound Santa Ana Avenue			Northbound East Driveway			Eastbound Santa Ana 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	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Feb 15, 22

LOCATION: Rialto
NORTH & SOUTH: Lilac
EAST & WEST: Santa Ana

PROJECT #: SC3292
LOCATION #: 1
CONTROL: STOP N/S

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND (Lilac)			SOUTHBOUND (Lilac)			EASTBOUND (Santa Ana)			WESTBOUND (Santa Ana)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	1	4	2	2	15	3	3	15	1	5	21	3	75
	7:15 AM	2	4	2	0	7	4	3	13	1	1	6	1	44
	7:30 AM	1	8	2	1	13	9	1	31	2	3	9	2	82
	7:45 AM	2	4	2	0	7	3	1	16	3	0	13	4	55
	8:00 AM	2	6	3	1	12	3	2	10	2	6	16	2	65
	8:15 AM	2	2	2	2	7	3	1	11	3	6	17	6	62
	8:30 AM	1	3	1	1	6	2	5	9	1	2	11	2	44
	8:45 AM	4	4	4	0	5	2	3	12	0	9	9	2	54
	VOLUMES	15	35	18	7	72	29	19	117	13	32	102	22	481
	APPROACH %	22%	51%	26%	6%	67%	27%	13%	79%	9%	21%	65%	14%	
	APP/DEPART	68	/	78	108	/	117	149	/	140	156	/	146	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	7	20	9	4	39	18	5	68	10	15	55	14	264
	APPROACH %	19%	56%	25%	7%	64%	30%	6%	82%	12%	18%	65%	17%	
	PEAK HR FACTOR		0.818			0.663			0.610			0.724		0.805
	APP/DEPART	36	/	40	61	/	64	83	/	80	84	/	80	0
PM	4:00 PM	5	15	1	1	5	1	5	36	2	2	15	3	91
	4:15 PM	4	5	1	4	5	9	5	27	4	3	11	3	81
	4:30 PM	1	5	2	4	3	1	3	30	1	1	21	3	75
	4:45 PM	0	10	2	2	7	2	3	29	1	0	26	4	86
	5:00 PM	3	7	2	7	11	3	3	24	1	0	21	0	82
	5:15 PM	0	9	2	2	6	1	5	24	0	0	19	1	69
	5:30 PM	0	4	1	3	4	3	0	26	0	0	18	0	59
	5:45 PM	3	8	2	2	0	2	1	19	0	2	17	0	56
	VOLUMES	16	63	13	25	41	22	25	215	9	8	148	14	599
	APPROACH %	17%	68%	14%	28%	47%	25%	10%	86%	4%	5%	87%	8%	
	APP/DEPART	92	/	102	88	/	58	249	/	253	170	/	186	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	10	35	6	11	20	13	16	122	8	6	73	13	333
	APPROACH %	20%	69%	12%	25%	45%	30%	11%	84%	5%	7%	79%	14%	
	PEAK HR FACTOR		0.607			0.611			0.849			0.767		0.915
	APP/DEPART	51	/	64	44	/	34	146	/	139	92	/	96	0

U-TURNS

NB	SB	EB	WB	TTL
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Lilac

NORTH SIDE

Santa Ana WEST SIDE EAST SIDE **Santa Ana**

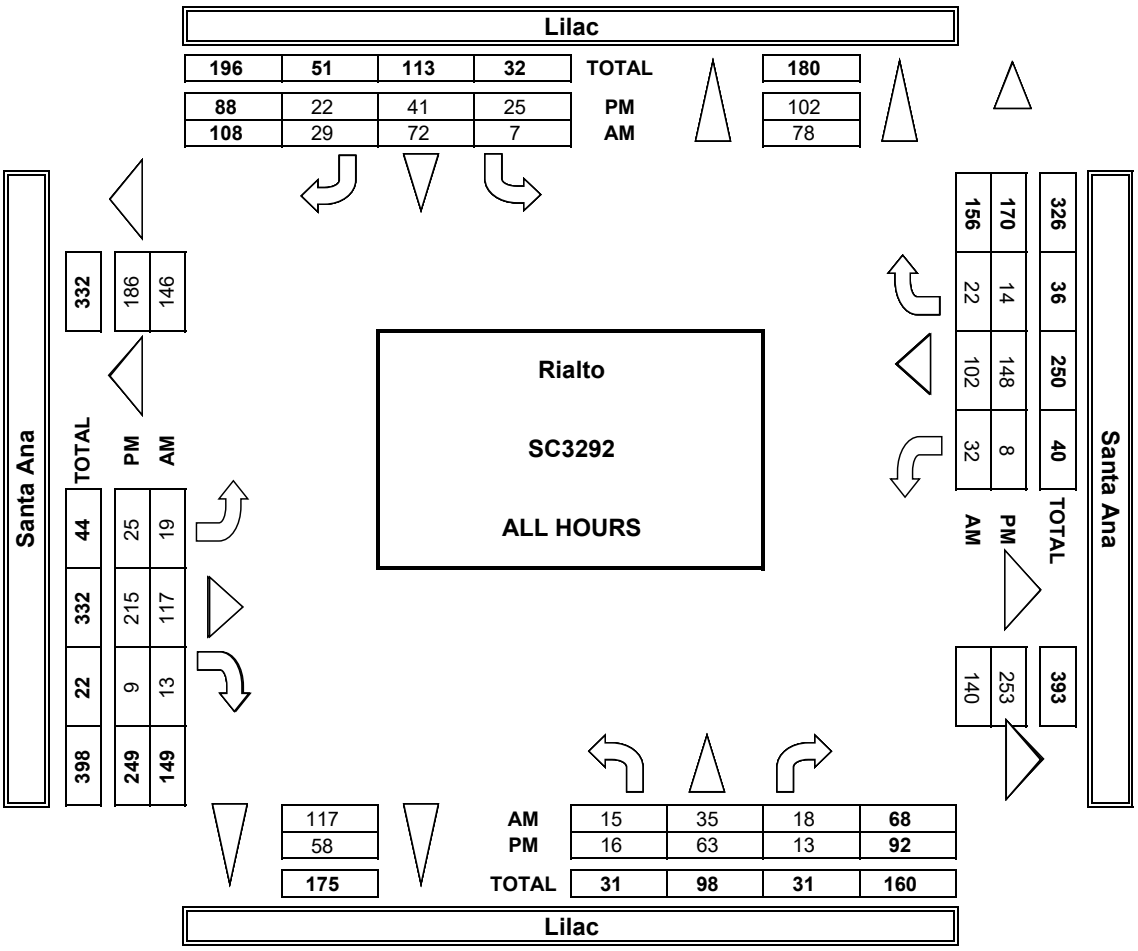
SOUTH SIDE

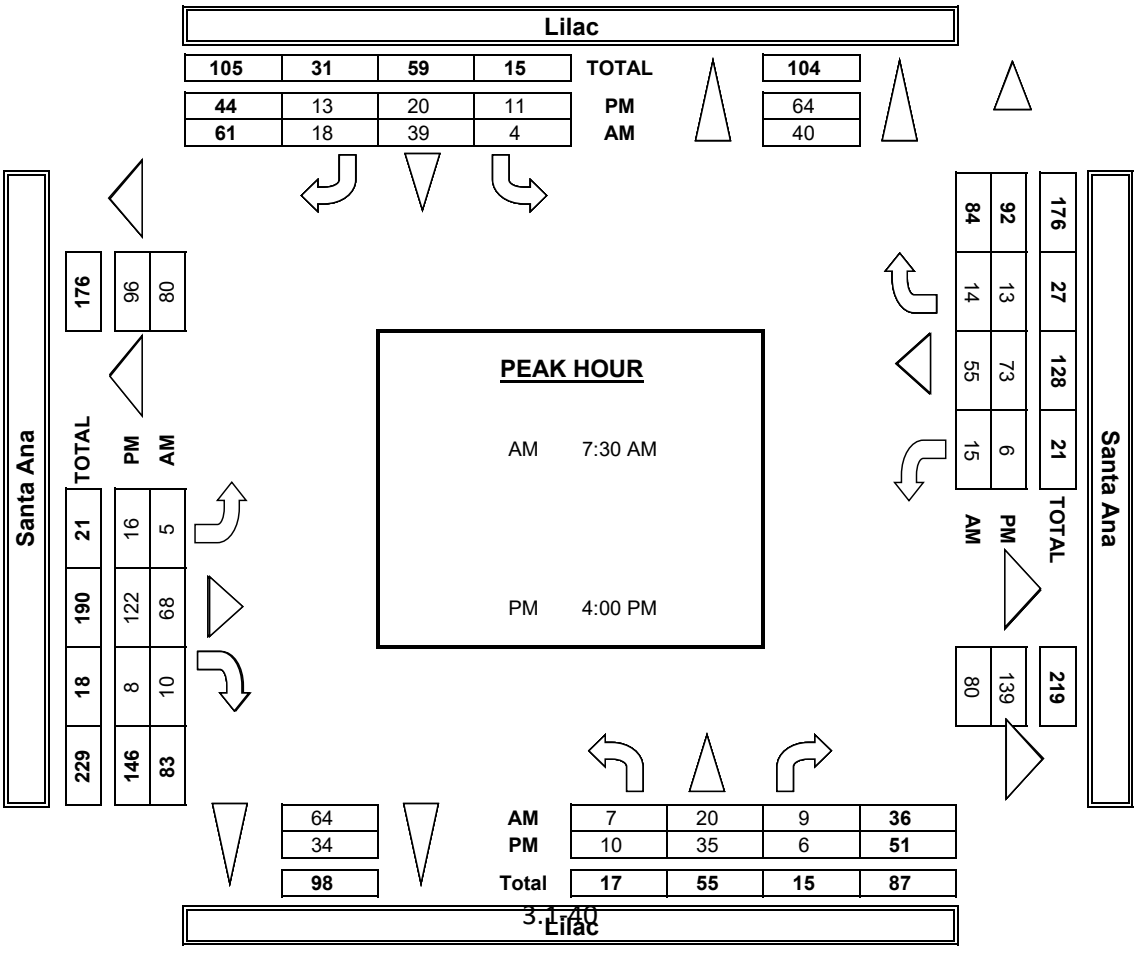
Lilac

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	TOTAL	0	0	1	2	3	0	0	0	1	1	0	0	1	1	2
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Lilac	LOCATION #:	1
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	STOP N/S

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

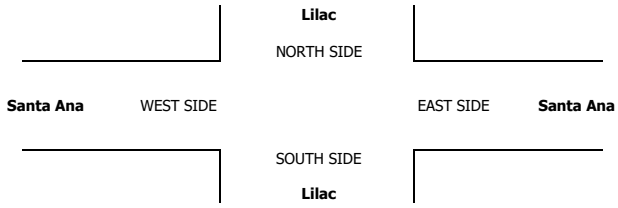
	NORTHBOUND Lilac			SOUTHBOUND Lilac			EASTBOUND Santa Ana			WESTBOUND Santa Ana			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	1	2	1	0	14	2	2	12	1	4	14	3	56
7:15 AM	0	1	1	0	5	3	3	11	0	1	2	1	28
7:30 AM	0	6	1	0	11	2	0	26	1	2	8	2	59
7:45 AM	0	1	1	0	6	1	1	14	3	0	11	1	39
8:00 AM	2	3	1	0	11	2	2	8	1	3	13	1	47
8:15 AM	1	1	2	2	6	1	0	7	2	1	10	4	37
8:30 AM	0	3	1	1	5	1	3	6	1	1	6	1	29
8:45 AM	3	2	1	0	3	1	1	10	0	4	7	1	33
AM VOLUMES	7	19	9	3	61	13	12	94	9	16	71	14	328
AM APPROACH %	20%	54%	26%	4%	79%	17%	10%	82%	8%	16%	70%	14%	
AM APP/DEPART	35	/	45	77	/	86	115	/	106	101	/	91	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	3	11	5	2	34	6	3	55	7	6	42	8	182
APPROACH %	16%	58%	26%	5%	81%	14%	5%	85%	11%	11%	75%	14%	
PEAK HR FACTOR		0.679			0.808			0.602			0.824		0.771
APP/DEPART	19	/	22	42	/	47	65	/	62	56	/	51	0
4:00 PM	4	12	1	0	5	1	5	30	2	1	15	2	78
4:15 PM	3	4	1	4	3	6	3	25	2	1	10	3	65
4:30 PM	1	3	1	2	3	1	2	27	1	1	16	2	60
4:45 PM	0	6	1	0	4	1	2	27	1	0	22	3	67
5:00 PM	3	6	1	5	7	3	3	22	1	0	19	0	70
5:15 PM	0	6	1	1	2	1	3	18	0	0	16	1	49
5:30 PM	0	1	0	0	3	3	0	21	0	0	15	0	43
5:45 PM	3	3	2	1	0	2	1	17	0	0	15	0	44
PM VOLUMES	14	41	8	13	27	18	19	187	7	3	128	11	476
PM APPROACH %	22%	65%	13%	22%	47%	31%	9%	88%	3%	2%	90%	8%	
PM APP/DEPART	63	/	71	58	/	37	213	/	208	142	/	160	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	8	25	4	6	15	9	12	109	6	3	63	10	270
APPROACH %	22%	68%	11%	20%	50%	30%	9%	86%	5%	4%	83%	13%	
PEAK HR FACTOR		0.544			0.577			0.858			0.760		0.865
APP/DEPART	37	/	47	30	/	24	127	/	119	76	/	80	0

U-TURNS

	NB	SB	EB	WB	TTL
AM	0	0	0	0	0
PM	0	0	0	0	0

RTOR

	NRR X	SRR X	ERR X	WRR X
AM	0	0	0	0
PM	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Lilac	LOCATION #:	1
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	STOP N/S

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

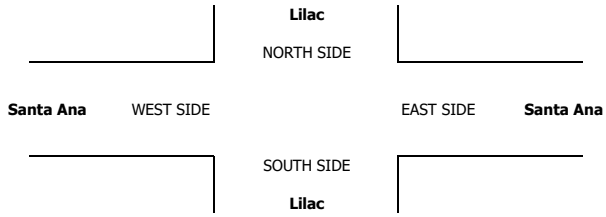
		NORTHBOUND (Lilac)			SOUTHBOUND (Lilac)			EASTBOUND (Santa Ana)			WESTBOUND (Santa Ana)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	1	0	1	1	0	1	2	0	0	4	0	10
	7:15 AM	1	0	0	0	0	0	0	2	1	0	3	0	7
	7:30 AM	0	1	0	1	0	5	1	0	0	1	1	0	10
	7:45 AM	1	2	1	0	1	2	0	1	0	0	1	1	10
	8:00 AM	0	1	1	0	0	0	0	1	1	1	1	0	6
	8:15 AM	1	0	0	0	0	1	0	1	1	2	2	0	8
	8:30 AM	0	0	0	0	1	0	0	3	0	0	4	1	9
	8:45 AM	1	1	0	0	1	1	2	1	0	2	2	1	12
	VOLUMES	4	6	2	2	4	9	4	11	3	6	18	3	72
	APPROACH %	33%	50%	17%	13%	27%	60%	22%	61%	17%	22%	67%	11%	
	APP/DEPART	12	/	14	15	/	13	18	/	14	27	/	31	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	2	4	2	0	1	8	1	3	2	4	5	1	34
	APPROACH %	25%	50%	25%	0%	10%	80%	17%	50%	33%	40%	50%	10%	
	PEAK HR FACTOR	0.500			0.417			0.750			0.625			0.850
	APP/DEPART	8	/	7	10	/	7	6	/	5	10	/	15	0
PM	4:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	2
	4:15 PM	0	0	0	0	0	1	1	2	0	1	0	0	5
	4:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	3
	4:45 PM	0	0	0	0	1	0	0	1	0	0	2	0	4
	5:00 PM	0	1	1	1	3	0	0	1	0	0	2	0	9
	5:15 PM	0	0	0	0	0	0	2	2	0	0	0	0	4
	5:30 PM	0	0	0	1	0	0	0	3	0	0	2	0	6
	5:45 PM	0	0	0	1	0	0	0	0	0	0	2	0	3
	VOLUMES	0	1	1	3	4	1	3	10	0	2	11	0	36
	APPROACH %	0%	50%	50%	38%	50%	13%	23%	77%	0%	15%	85%	0%	
	APP/DEPART	2	/	4	8	/	6	13	/	14	13	/	12	0
	BEGIN PEAK HR	4:00 PM												
	VOLUMES	0	0	0	0	1	1	1	4	0	2	5	0	14
	APPROACH %	0%	0%	0%	0%	50%	50%	20%	80%	0%	29%	71%	0%	
	PEAK HR FACTOR	0.000			0.500			0.417			0.583			0.700
	APP/DEPART	0	/	1	2	/	3	5	/	4	7	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Lilac	LOCATION #:	1
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	STOP N/S

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

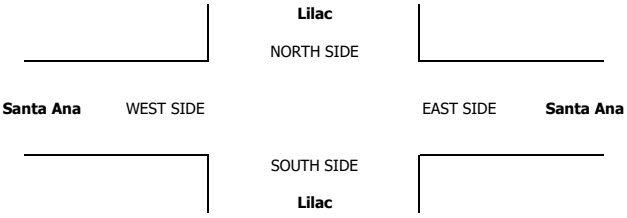
	NORTHBOUND Lilac			SOUTHBOUND Lilac			EASTBOUND Santa Ana			WESTBOUND Santa Ana			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	1	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	1	0	1	1	0	2	0	0	0	0	5
7:45 AM	1	0	0	0	0	0	0	0	0	0	0	1	2
8:00 AM	0	0	1	0	1	0	0	0	0	1	1	1	5
8:15 AM	0	0	0	0	1	0	0	0	0	2	1	1	5
8:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	2
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
AM VOLUMES	2	1	2	0	4	2	0	2	0	3	3	3	22
AM APPROACH %	40%	20%	40%	0%	67%	33%	0%	100%	0%	33%	33%	33%	
AM APP/DEPART	5	/	4	6	/	7	2	/	4	9	/	7	0
AM BEGIN PEAK HR		7:30 AM											
AM PEAK HR VOLUMES	1	0	2	0	3	1	0	2	0	3	2	3	17
AM PEAK HR APPROACH %	33%	0%	67%	0%	75%	25%	0%	100%	0%	38%	25%	38%	
AM PEAK HR FACTOR		0.750			0.500			0.250			0.500		0.850
AM PEAK HR APP/DEPART	3	/	3	4	/	6	2	/	4	8	/	4	0
4:00 PM	0	1	0	0	0	0	0	4	0	0	0	0	5
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	2	0	0	1	1	4
4:45 PM	0	3	0	0	1	1	0	1	0	0	2	1	9
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	4	0	0	2	0	8
5:30 PM	0	2	0	0	1	0	0	1	0	0	0	0	4
5:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
PM VOLUMES	1	10	0	0	4	1	0	13	0	0	5	2	36
PM APPROACH %	9%	91%	0%	0%	80%	20%	0%	100%	0%	0%	71%	29%	
PM APP/DEPART	11	/	12	5	/	4	13	/	13	7	/	7	0
PM BEGIN PEAK HR		4:00 PM											
PM PEAK HR VOLUMES	1	4	0	0	2	1	0	7	0	0	3	2	20
PM PEAK HR APPROACH %	20%	80%	0%	0%	67%	33%	0%	100%	0%	0%	60%	40%	
PM PEAK HR FACTOR		0.417			0.375			0.438			0.417		0.556
PM PEAK HR APP/DEPART	5	/	6	3	/	2	7	/	7	5	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Lilac	LOCATION #:	1
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	STOP N/S

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

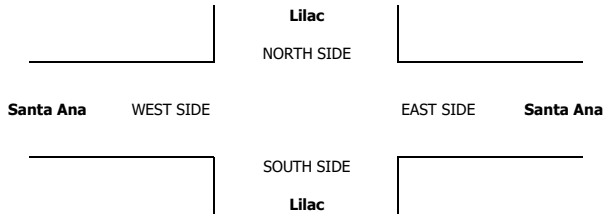
		NORTHBOUND (Lilac)			SOUTHBOUND (Lilac)			EASTBOUND (Santa Ana)			WESTBOUND (Santa Ana)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	1	1	1	0	1	0	1	0	1	3	0	9
	7:15 AM	0	2	1	0	2	1	0	0	0	0	1	0	7
	7:30 AM	1	1	0	0	1	1	0	3	1	0	0	0	8
	7:45 AM	0	1	0	0	0	0	0	1	0	0	1	1	4
	8:00 AM	0	2	0	1	0	1	0	1	0	1	1	0	7
	8:15 AM	0	1	0	0	0	1	1	3	0	1	4	1	12
	8:30 AM	0	0	0	0	0	0	2	0	0	1	0	0	3
	8:45 AM	0	1	3	0	0	0	0	1	0	3	0	0	8
	VOLUMES	1	9	5	2	3	5	3	10	1	7	10	2	58
	APPROACH %	7%	60%	33%	20%	30%	50%	21%	71%	7%	37%	53%	11%	
	APP/DEPART	15	/	15	10	/	11	14	/	16	19	/	16	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	1	5	0	1	1	3	1	8	1	2	6	2	31
	APPROACH %	17%	83%	0%	20%	20%	60%	10%	80%	10%	20%	60%	20%	
	PEAK HR FACTOR		0.750			0.625			0.625			0.417		0.646
	APP/DEPART	6	/	8	5	/	4	10	/	9	10	/	10	0
PM	4:00 PM	0	2	0	1	0	0	0	1	0	0	0	1	5
	4:15 PM	0	1	0	0	1	2	1	0	2	1	1	0	9
	4:30 PM	0	2	1	2	0	0	1	1	0	0	1	0	8
	4:45 PM	0	1	1	2	1	0	1	0	0	0	0	0	6
	5:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
	5:15 PM	0	2	1	1	3	0	0	0	0	0	1	0	8
	5:30 PM	0	1	1	2	0	0	0	1	0	0	1	0	6
	5:45 PM	0	2	0	0	0	0	0	2	0	2	0	0	6
	VOLUMES	0	11	4	9	6	2	3	5	2	3	4	1	50
	APPROACH %	0%	73%	27%	53%	35%	12%	30%	50%	20%	38%	50%	13%	
	APP/DEPART	15	/	15	17	/	11	10	/	18	8	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	6	2	5	2	2	3	2	2	1	2	1	28
	APPROACH %	0%	75%	25%	56%	22%	22%	43%	29%	29%	25%	50%	25%	
	PEAK HR FACTOR		0.667			0.750			0.583			0.500		0.778
	APP/DEPART	8	/	10	9	/	5	7	/	9	4	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Lilac	LOCATION #:	1
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	STOP N/S

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

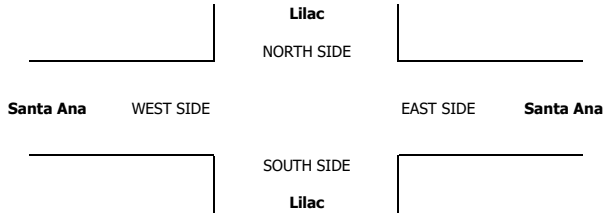
		NORTHBOUND (Lilac)			SOUTHBOUND (Lilac)			EASTBOUND (Santa Ana)			WESTBOUND (Santa Ana)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	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	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Lilac	LOCATION #:	1
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	STOP N/S

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

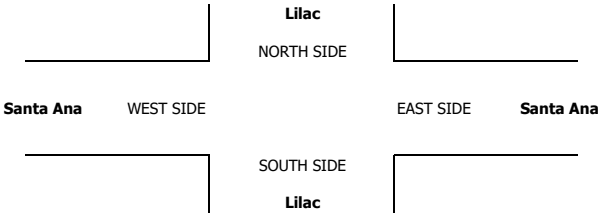
		NORTHBOUND (Lilac)			SOUTHBOUND (Lilac)			EASTBOUND (Santa Ana)			WESTBOUND (Santa Ana)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	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	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	0	0	/	1	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	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	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	0	0	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
	APP/DEPART	1	/	0	0	/	0	0	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
Tue, Feb 15, 22	NORTH & SOUTH:	Santa Ana	LOCATION #:	2
	EAST & WEST:	Willow	CONTROL:	STOP N/S

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND (Santa Ana)			SOUTHBOUND (Santa Ana)			EASTBOUND (Willow)			WESTBOUND (Willow)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	3	4	3	2	7	0	4	10	3	12	20	2	70
	7:15 AM	1	3	4	0	5	0	1	13	2	9	7	2	47
	7:30 AM	2	6	6	1	8	0	2	25	4	9	15	3	81
	7:45 AM	2	2	3	2	5	1	3	17	1	8	17	2	63
	8:00 AM	2	7	4	1	7	2	0	16	2	7	18	2	68
	8:15 AM	2	3	3	1	4	9	1	11	4	5	17	5	65
	8:30 AM	3	6	6	4	4	1	0	7	5	3	14	5	58
	8:45 AM	1	8	5	0	3	0	0	13	1	4	17	3	55
	VOLUMES	16	39	34	11	43	13	11	112	22	57	125	24	507
	APPROACH %	18%	44%	38%	16%	64%	19%	8%	77%	15%	28%	61%	12%	
	APP/DEPART	89	/	72	67	/	122	145	/	157	206	/	156	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	8	18	16	5	24	12	6	69	11	29	67	12	277
	APPROACH %	19%	43%	38%	12%	59%	29%	7%	80%	13%	27%	62%	11%	
	PEAK HR FACTOR		0.750			0.732			0.694			1.000		0.855
	APP/DEPART	42	/	35	41	/	64	86	/	90	108	/	88	0
PM	4:00 PM	0	3	6	3	13	5	2	23	8	2	17	4	86
	4:15 PM	0	12	6	2	9	1	5	26	3	6	14	7	91
	4:30 PM	2	15	4	0	6	1	3	32	4	4	22	6	99
	4:45 PM	2	6	10	1	6	4	1	30	1	2	24	5	92
	5:00 PM	0	12	5	3	4	1	3	23	5	3	23	1	83
	5:15 PM	1	8	10	2	6	1	5	21	0	4	19	3	80
	5:30 PM	2	12	5	0	1	1	1	24	5	2	12	7	72
	5:45 PM	1	7	3	1	4	1	2	21	2	2	18	7	69
	VOLUMES	8	75	49	12	49	15	22	200	28	25	149	40	672
	APPROACH %	6%	57%	37%	16%	64%	20%	9%	80%	11%	12%	70%	19%	
	APP/DEPART	132	/	137	76	/	102	250	/	261	214	/	172	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	4	36	26	6	34	11	11	111	16	14	77	22	368
	APPROACH %	6%	55%	39%	12%	67%	22%	8%	80%	12%	12%	68%	19%	
	PEAK HR FACTOR		0.786			0.607			0.885			0.883		0.929
	APP/DEPART	66	/	69	51	/	64	138	/	143	113	/	92	0

U-TURNS

NB 0	SB 0	EB 0	WB 0	TTL
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

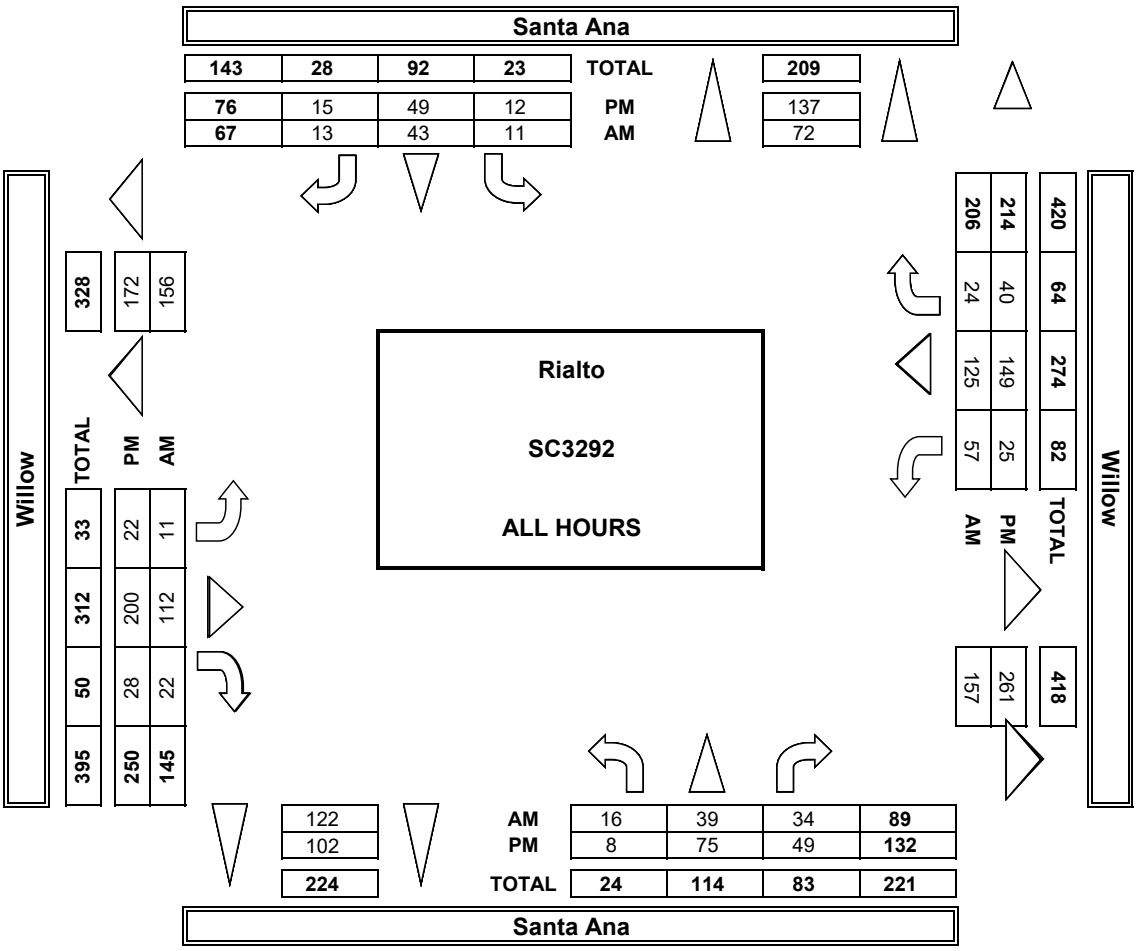
NRR X	SRR X	ERR X	WRR X
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
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0	0	0	0
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0	0	0	0
0	0	0	0

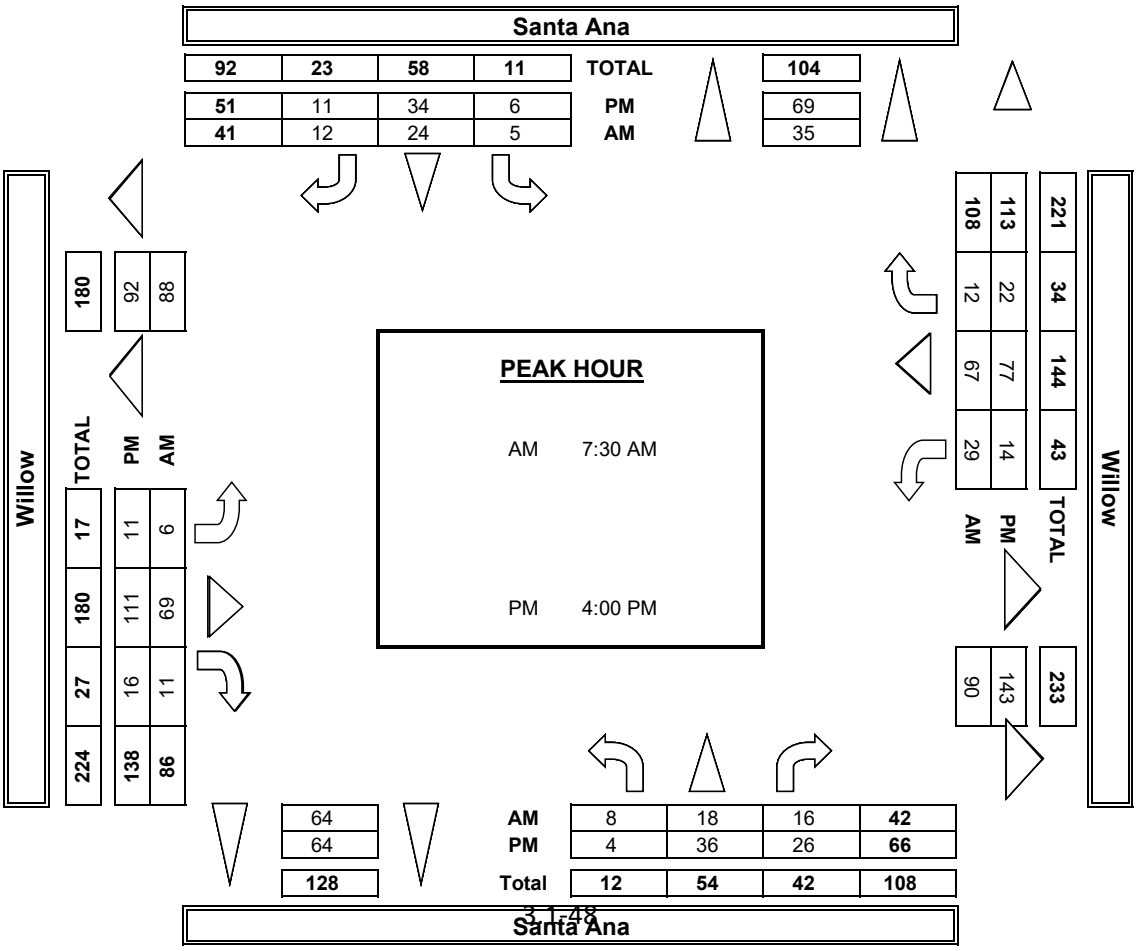


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	2	0	1	3	0	1	0	0	1	0	1	0	1	2
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	0	1	3	0	1	0	0	1	0	1	0	1	2
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Santa Ana	LOCATION #:	2
TUESDAY	EAST & WEST:	Willow	CONTROL:	STOP N/S

CLASS 1: PASSENGER VEHICLES

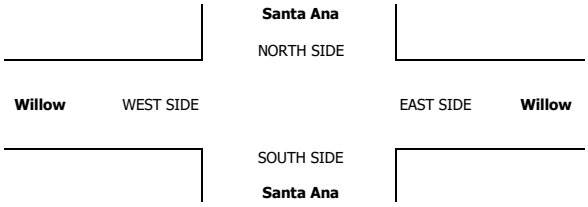
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Santa Ana			SOUTHBOUND Santa Ana			EASTBOUND Willow			WESTBOUND Willow			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	2	2	0	0	4	0	3	7	3	12	14	2	49
7:15 AM	0	2	0	0	5	0	1	10	1	6	4	2	31
7:30 AM	1	2	3	0	5	0	2	21	3	6	12	2	57
7:45 AM	0	1	1	0	2	0	2	15	1	8	14	0	44
8:00 AM	2	2	1	0	5	0	0	12	1	5	16	1	45
8:15 AM	0	2	1	1	3	8	1	9	3	4	10	5	47
8:30 AM	1	3	2	1	2	0	0	5	3	2	9	2	30
8:45 AM	0	5	3	0	1	0	0	10	0	3	9	1	32
AM VOLUMES	6	19	11	2	27	8	9	89	15	46	88	15	335
AM APPROACH %	17%	53%	31%	5%	73%	22%	8%	79%	13%	31%	59%	10%	
AM APP/DEPART	36	/	41	37	/	88	113	/	102	149	/	104	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	3	7	6	1	15	8	4	57	8	23	52	8	193
APPROACH %	19%	44%	38%	4%	63%	33%	6%	81%	11%	28%	63%	10%	
PEAK HR FACTOR		0.667			0.500			0.673			0.943		0.846
APP/DEPART	16	/	19	24	/	46	70	/	64	83	/	64	0
4:00 PM	0	3	3	2	9	5	1	19	7	2	15	4	70
4:15 PM	0	9	3	1	5	1	5	24	1	1	11	3	64
4:30 PM	1	13	3	0	3	1	3	27	3	1	17	5	77
4:45 PM	2	4	10	0	4	1	1	24	1	0	22	4	73
5:00 PM	0	9	2	2	3	1	3	20	4	2	20	0	66
5:15 PM	1	7	8	1	1	1	4	15	0	2	16	1	57
5:30 PM	1	9	5	0	1	1	1	18	1	1	11	6	55
5:45 PM	1	6	2	0	1	1	2	18	0	2	15	3	51
PM VOLUMES	6	60	36	6	27	12	20	165	17	11	127	26	513
PM APPROACH %	6%	59%	35%	13%	60%	27%	10%	82%	8%	7%	77%	16%	
PM APP/DEPART	102	/	106	45	/	55	202	/	207	164	/	145	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	3	29	19	3	21	8	10	94	12	4	65	16	284
APPROACH %	6%	57%	37%	9%	66%	25%	9%	81%	10%	5%	76%	19%	
PEAK HR FACTOR		0.750			0.500			0.879			0.817		0.922
APP/DEPART	51	/	55	32	/	37	116	/	116	85	/	76	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	1	0	1	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	1	0	1	
0	0	0	0	0	
0	0	0	0	0	
0	0	2	0	2	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Santa Ana	LOCATION #:	2
TUESDAY	EAST & WEST:	Willow	CONTROL:	STOP N/S

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Santa Ana)			SOUTHBOUND (Santa Ana)			EASTBOUND (Willow)			WESTBOUND (Willow)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	1	0	2	1	1	0	1	2	0	0	3	0	11
	7:15 AM	1	1	1	0	0	0	0	2	1	2	2	0	10
	7:30 AM	1	1	0	0	0	0	0	1	0	2	2	0	7
	7:45 AM	2	0	2	0	0	0	0	1	0	0	1	0	6
	8:00 AM	0	1	2	0	0	0	0	1	1	2	1	0	8
	8:15 AM	1	1	2	0	0	0	0	1	0	1	2	0	8
	8:30 AM	1	1	2	0	0	1	0	1	2	1	3	0	12
	8:45 AM	1	2	2	0	0	0	0	0	0	1	4	0	10
	VOLUMES	8	7	13	1	1	1	1	9	4	9	18	0	72
	APPROACH %	29%	25%	46%	33%	33%	33%	7%	64%	29%	33%	67%	0%	
	APP/DEPART	28	/	8	3	/	14	14	/	23	27	/	27	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	4	3	6	0	0	0	0	4	1	5	6	0	29
	APPROACH %	31%	23%	46%	0%	0%	0%	0%	80%	20%	45%	55%	0%	
	PEAK HR FACTOR		0.813			0.000			0.625			0.688		0.906
	APP/DEPART	13	/	3	0	/	6	5	/	10	11	/	10	0
PM	4:00 PM	0	0	0	1	0	0	0	1	0	0	0	0	2
	4:15 PM	0	1	1	0	0	0	0	1	1	2	1	0	7
	4:30 PM	0	1	1	0	2	0	0	0	0	1	3	0	8
	4:45 PM	0	0	0	0	1	0	0	3	0	2	2	0	8
	5:00 PM	0	1	2	0	0	0	0	1	1	0	3	0	8
	5:15 PM	0	1	1	1	1	0	0	1	0	2	0	0	7
	5:30 PM	1	1	0	0	0	0	0	1	3	1	0	0	7
	5:45 PM	0	0	0	0	0	0	0	1	1	0	2	0	4
	VOLUMES	1	5	5	2	4	0	0	9	6	8	11	0	51
	APPROACH %	9%	45%	45%	33%	67%	0%	0%	60%	40%	42%	58%	0%	
	APP/DEPART	11	/	5	6	/	18	15	/	16	19	/	12	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	2	2	1	3	0	0	5	1	5	6	0	25
	APPROACH %	0%	50%	50%	25%	75%	0%	0%	83%	17%	45%	55%	0%	
	PEAK HR FACTOR		0.500			0.500			0.500			0.688		0.781
	APP/DEPART	4	/	2	4	/	9	6	/	8	11	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Santa Ana

NORTH SIDE

Willow WEST SIDE EAST SIDE **Willow**

SOUTH SIDE

Santa Ana

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Santa Ana	LOCATION #:	2
TUESDAY	EAST & WEST:	Willow	CONTROL:	STOP N/S

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Santa Ana			SOUTHBOUND Santa Ana			EASTBOUND Willow			WESTBOUND Willow			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	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	1	0	0	2	0	0	2	0	1	1	1	8
	7:45 AM	0	0	0	1	0	0	1	0	0	0	0	0	2
	8:00 AM	0	1	0	1	1	1	0	1	0	0	1	1	7
	8:15 AM	1	0	0	0	1	0	0	0	0	0	3	0	5
	8:30 AM	0	1	0	0	0	0	0	0	0	0	1	1	3
	8:45 AM	0	1	0	0	0	0	0	0	0	0	0	1	2
	VOLUMES	1	4	0	2	4	1	1	3	0	1	6	4	27
	APPROACH %	20%	80%	0%	29%	57%	14%	25%	75%	0%	9%	55%	36%	
	APP/DEPART	5	/	9	7	/	5	4	/	5	11	/	8	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	1	2	0	2	4	1	1	3	0	1	5	2	22
	APPROACH %	33%	67%	0%	29%	57%	14%	25%	75%	0%	13%	63%	25%	
	PEAK HR FACTOR		0.750			0.583			0.500			0.667		0.688
	APP/DEPART	3	/	5	7	/	5	4	/	5	8	/	7	0
PM	4:00 PM	0	0	2	0	0	0	1	3	0	0	0	0	6
	4:15 PM	0	1	1	1	0	0	0	0	0	0	0	3	6
	4:30 PM	0	0	0	0	0	0	0	1	1	1	2	1	6
	4:45 PM	0	0	0	1	0	3	0	1	0	0	0	1	6
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
	5:15 PM	0	0	1	0	1	0	0	4	0	0	1	1	8
	5:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
	5:45 PM	0	1	0	0	1	0	0	0	0	0	0	3	5
	VOLUMES	0	3	4	2	2	3	1	11	1	1	3	10	41
	APPROACH %	0%	43%	57%	29%	29%	43%	8%	85%	8%	7%	21%	71%	
	APP/DEPART	7	/	14	7	/	4	13	/	17	14	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	3	2	0	3	1	5	1	1	2	5	24
	APPROACH %	0%	25%	75%	40%	0%	60%	14%	71%	14%	13%	25%	63%	
	PEAK HR FACTOR		0.500			0.313			0.438			0.500		1.000
	APP/DEPART	4	/	7	5	/	2	7	/	10	8	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Santa Ana

NORTH SIDE

Willow WEST SIDE EAST SIDE **Willow**

SOUTH SIDE

Santa Ana

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Santa Ana	LOCATION #:	2
TUESDAY	EAST & WEST:	Willow	CONTROL:	STOP N/S

CLASS 4: 4 OR MORE AXLE TRUCKS

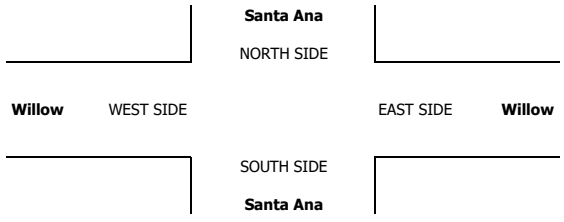
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND (Santa Ana)			SOUTHBOUND (Santa Ana)			EASTBOUND (Willow)			WESTBOUND (Willow)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	2	1	1	2	0	0	1	0	0	3	0	10
	7:15 AM	0	0	2	0	0	0	0	1	0	1	1	0	5
	7:30 AM	0	2	3	1	1	0	0	1	1	0	0	0	9
	7:45 AM	0	1	0	1	3	1	0	1	0	0	2	2	11
	8:00 AM	0	3	1	0	1	1	0	2	0	0	0	0	8
	8:15 AM	0	0	0	0	0	1	0	1	1	0	2	0	5
	8:30 AM	1	1	2	3	2	0	0	1	0	0	1	2	13
	8:45 AM	0	0	0	0	2	0	0	3	1	0	4	1	11
	VOLUMES	1	9	9	6	11	3	0	11	3	1	13	5	72
	APPROACH %	5%	47%	47%	30%	55%	15%	0%	79%	21%	5%	68%	26%	
	APP/DEPART	19	/	14	20	/	15	14	/	26	19	/	17	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	6	4	2	5	3	0	5	2	0	4	2	33
	APPROACH %	0%	60%	40%	20%	50%	30%	0%	71%	29%	0%	67%	33%	
	PEAK HR FACTOR		0.500			0.500			0.875			0.375		0.750
	APP/DEPART	10	/	8	10	/	7	7	/	11	6	/	7	0
PM	4:00 PM	0	0	1	0	4	0	0	0	1	0	2	0	8
	4:15 PM	0	1	1	0	4	0	0	1	1	3	2	1	14
	4:30 PM	1	1	0	0	1	0	0	4	0	1	0	0	8
	4:45 PM	0	2	0	0	1	0	0	2	0	0	0	0	5
	5:00 PM	0	2	1	1	1	0	0	1	0	1	0	0	7
	5:15 PM	0	0	0	0	3	0	1	1	0	0	2	1	8
	5:30 PM	0	1	0	0	0	0	0	4	1	0	1	1	8
	5:45 PM	0	0	1	1	2	0	0	2	1	0	1	1	9
	VOLUMES	1	7	4	2	16	0	1	15	4	5	8	4	67
	APPROACH %	8%	58%	33%	11%	89%	0%	5%	75%	20%	29%	47%	24%	
	APP/DEPART	12	/	12	18	/	25	20	/	21	17	/	9	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	4	2	0	10	0	0	7	2	4	4	1	35
	APPROACH %	14%	57%	29%	0%	100%	0%	0%	78%	22%	44%	44%	11%	
	PEAK HR FACTOR		0.875			0.625			0.563			0.375		0.625
	APP/DEPART	7	/	5	10	/	16	9	/	9	9	/	5	0

U-TURNS NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Santa Ana	LOCATION #:	2
TUESDAY	EAST & WEST:	Willow	CONTROL:	STOP N/S

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

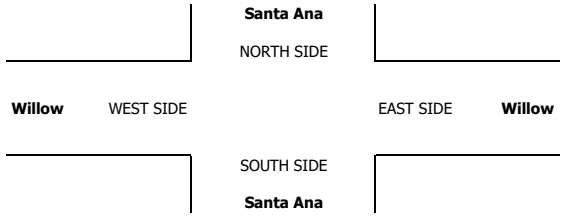
		NORTHBOUND Santa Ana			SOUTHBOUND Santa Ana			EASTBOUND Willow			WESTBOUND Willow			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	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	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Santa Ana	LOCATION #:	2
TUESDAY	EAST & WEST:	Willow	CONTROL:	STOP N/S

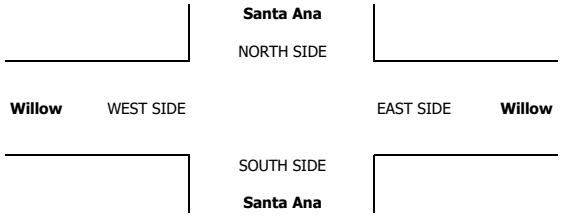
CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Santa Ana			SOUTHBOUND Santa Ana			EASTBOUND Willow			WESTBOUND Willow			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	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
	VOLUMES	0	0	1	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Feb 15, 22

LOCATION: Rialto
NORTH & SOUTH: Riverside
EAST & WEST: I-10 WB Ramps

PROJECT #: SC3292
LOCATION #: 3
CONTROL: SIGNAL

NOTES: Queue WB 8:49 - 9:00 AM

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

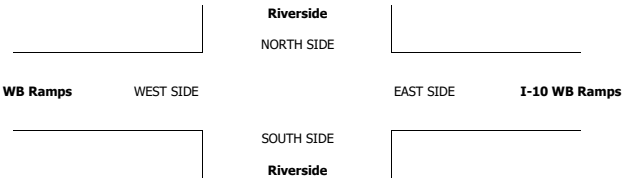
		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 WB Ramps			WESTBOUND I-10 WB Ramps			
	LANES:	NL 2	NT 3	NR X	SL X	ST 4	SR 1	EL X	ET X	ER X	WL 1.3	WT 0.3	WR 1.3	TOTAL
AM	7:00 AM	39	151	0	0	218	161	0	0	0	77	0	67	713
	7:15 AM	33	118	0	0	241	163	0	0	0	104	0	84	743
	7:30 AM	33	201	0	0	275	143	0	0	0	87	0	81	820
	7:45 AM	38	176	0	0	253	132	0	0	0	122	0	98	819
	8:00 AM	35	143	0	0	213	124	0	0	0	85	0	68	668
	8:15 AM	28	132	0	0	182	126	0	0	0	78	0	66	612
	8:30 AM	46	183	0	0	213	119	0	0	0	102	0	75	738
	8:45 AM	26	151	0	0	190	79	0	0	0	134	0	110	690
	VOLUMES	278	1,255	0	0	1,785	1,047	0	0	0	789	0	649	5,803
	APPROACH %	18%	82%	0%	0%	63%	37%	0%	0%	0%	55%	0%	45%	
	APP/DEPART	1,533	/	1,904	2,832	/	2,574	0	/	0	1,438	/	1,325	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	143	646	0	0	987	599	0	0	0	390	0	330	3,095
	APPROACH %	18%	82%	0%	0%	62%	38%	0%	0%	0%	54%	0%	46%	
	PEAK HR FACTOR		0.843			0.949			0.000			0.818		0.944
	APP/DEPART	789	/	976	1,586	/	1,377	0	/	0	720	/	742	0
PM	4:00 PM	50	320	0	0	239	99	0	0	0	71	0	116	895
	4:15 PM	57	288	0	0	186	87	0	0	0	63	0	113	794
	4:30 PM	52	320	0	0	226	92	0	0	0	83	0	105	878
	4:45 PM	67	316	0	0	215	82	0	0	0	71	0	131	882
	5:00 PM	49	342	0	0	221	102	0	0	0	74	0	120	908
	5:15 PM	72	302	0	0	201	105	0	0	0	62	0	112	854
	5:30 PM	32	308	0	0	199	95	0	0	0	71	1	124	830
	5:45 PM	37	295	0	0	151	78	0	0	0	60	2	108	731
	VOLUMES	416	2,491	0	0	1,638	740	0	0	0	555	3	929	6,772
	APPROACH %	14%	86%	0%	0%	69%	31%	0%	0%	0%	37%	0%	62%	
	APP/DEPART	2,907	/	3,420	2,378	/	2,193	0	/	0	1,487	/	1,159	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	240	1,280	0	0	863	381	0	0	0	290	0	468	3,522
	APPROACH %	16%	84%	0%	0%	69%	31%	0%	0%	0%	38%	0%	62%	
	PEAK HR FACTOR		0.972			0.963			0.000			0.938		0.970
	APP/DEPART	1,520	/	1,748	1,244	/	1,153	0	/	0	758	/	621	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

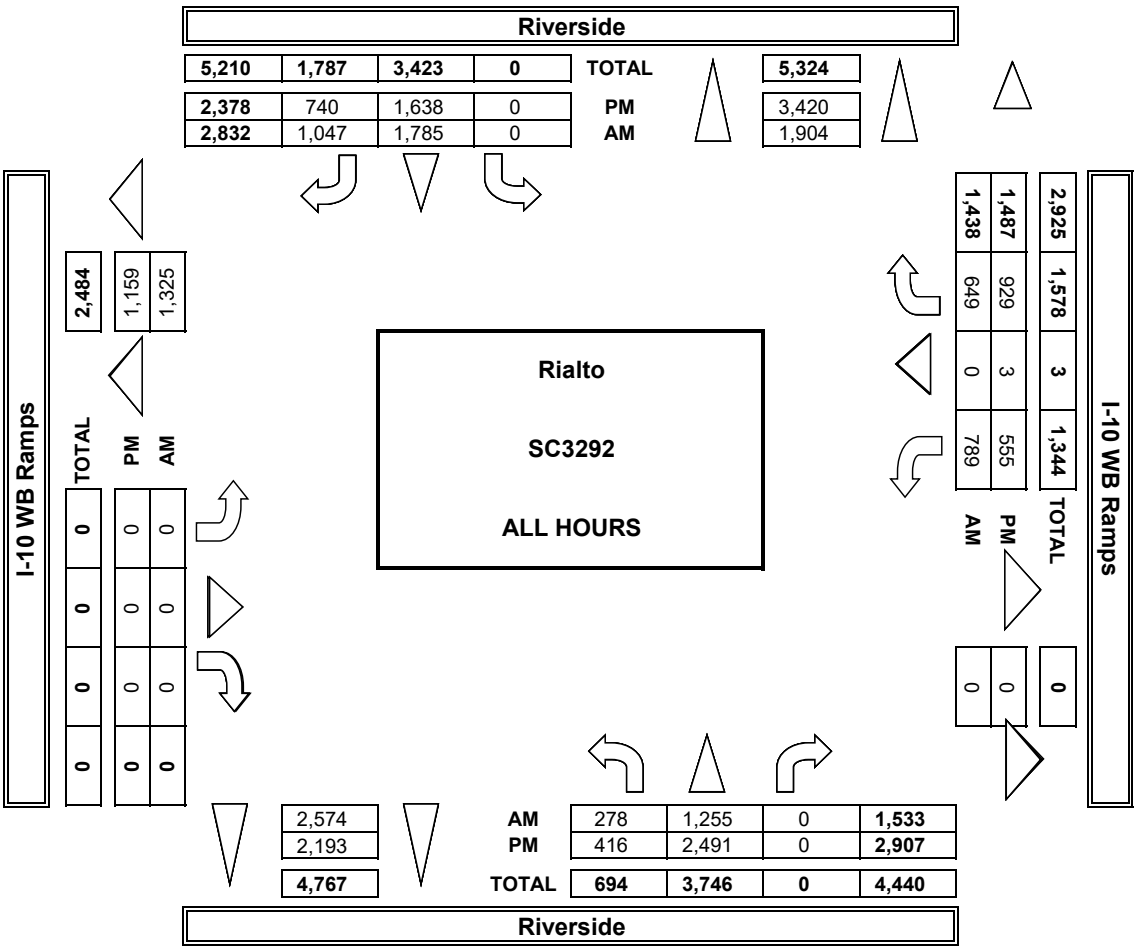
NRR X	SRR 0	ERR X	WRR 0
0	47	0	35
0	55	0	45
0	37	0	49
0	43	0	38
0	36	0	49
0	33	0	50
0	29	0	42
0	23	0	44
0	303	0	352
0	182	0	167
0	35	0	25
0	32	0	35
0	42	0	25
0	29	0	32
0	30	0	17
0	44	0	33
0	35	0	30
0	23	0	26
0	270	0	223
0	145	0	107

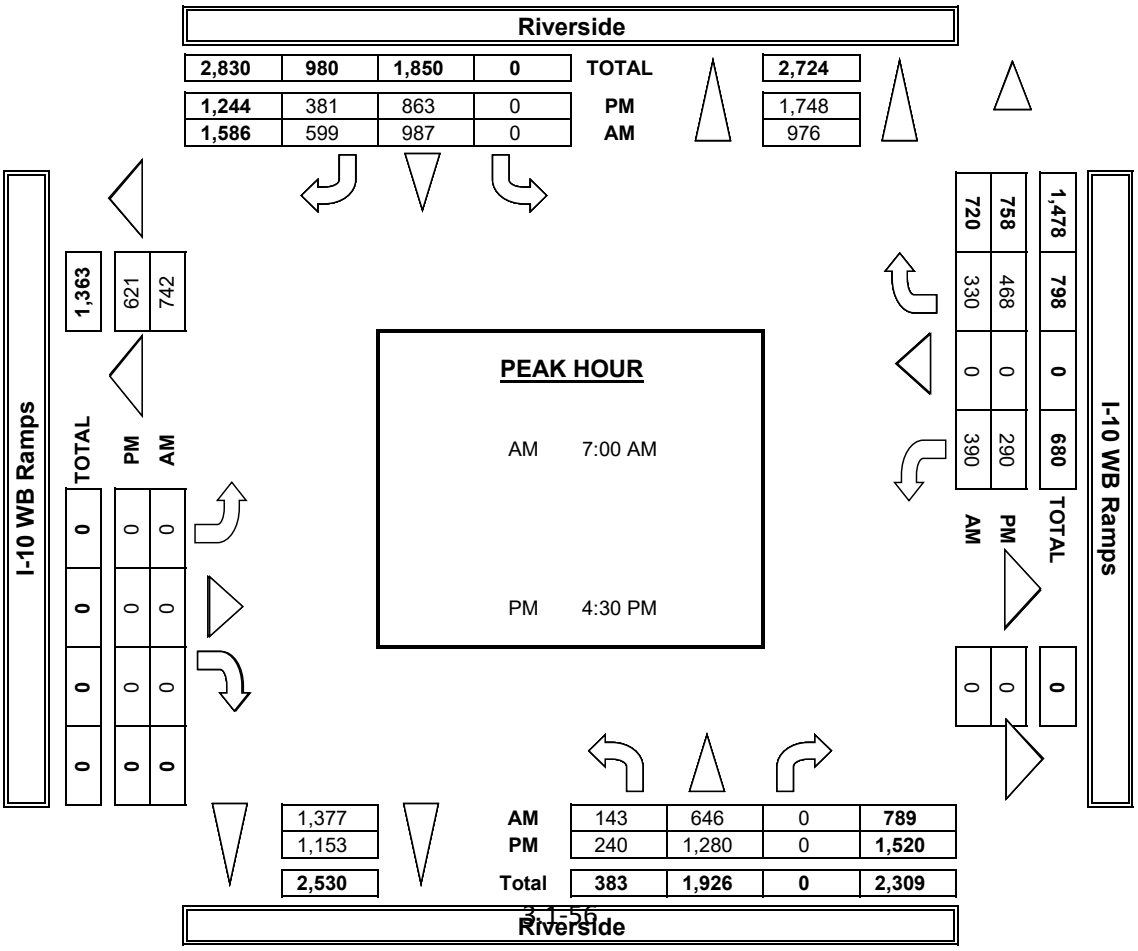


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:15 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:30 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	3	0	0	0	3	1	0	0	0	1	2	0	0	0	2
	8:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	8:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	8	1	0	0	9	4	1	0	0	5	4	0	0	0	4
PM	4:00 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:15 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	5:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	TOTAL	4	0	0	0	4	3	0	0	0	3	1	0	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	3
TUESDAY	EAST & WEST:	I-10 WB Ramps	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 WB Ramps			WESTBOUND I-10 WB Ramps			
	LANES:	NL 2	NT 3	NR X	SL X	ST 4	SR 1	EL X	ET X	ER X	WL 1.3	WT 0.3	WR 1.3	TOTAL
AM	7:00 AM	10	129	0	0	196	153	0	0	0	60	0	61	609
	7:15 AM	5	101	0	0	227	154	0	0	0	75	0	78	640
	7:30 AM	9	187	0	0	255	140	0	0	0	67	0	77	735
	7:45 AM	12	165	0	0	238	124	0	0	0	98	0	96	733
	8:00 AM	10	128	0	0	195	115	0	0	0	70	0	59	577
	8:15 AM	9	118	0	0	163	116	0	0	0	56	0	61	523
	8:30 AM	15	165	0	0	187	108	0	0	0	79	0	70	624
	8:45 AM	11	129	0	0	171	71	0	0	0	100	0	93	575
	VOLUMES	81	1,122	0	0	1,632	981	0	0	0	605	0	595	5,016
	APPROACH %	7%	93%	0%	0%	62%	38%	0%	0%	0%	50%	0%	50%	
	APP/DEPART	1,203	/	1,717	2,613	/	2,237	0	/	0	1,200	/	1,062	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	36	582	0	0	916	571	0	0	0	300	0	312	2,717
	APPROACH %	6%	94%	0%	0%	62%	38%	0%	0%	0%	49%	0%	51%	
	PEAK HR FACTOR		0.788			0.941			0.000			0.789		0.924
	APP/DEPART	618	/	894	1,487	/	1,216	0	/	0	612	/	607	0
PM	4:00 PM	37	296	0	0	222	97	0	0	0	45	0	106	803
	4:15 PM	38	273	0	0	173	82	0	0	0	29	0	109	704
	4:30 PM	38	294	0	0	215	91	0	0	0	50	0	98	786
	4:45 PM	54	302	0	0	202	78	0	0	0	50	0	125	811
	5:00 PM	36	328	0	0	215	98	0	0	0	47	0	118	842
	5:15 PM	56	283	0	0	190	100	0	0	0	43	0	108	780
	5:30 PM	24	295	0	0	190	92	0	0	0	43	0	120	764
	5:45 PM	22	280	0	0	143	78	0	0	0	42	2	105	672
	VOLUMES	305	2,351	0	0	1,550	716	0	0	0	349	2	889	6,162
	APPROACH %	11%	89%	0%	0%	68%	32%	0%	0%	0%	28%	0%	72%	
	APP/DEPART	2,656	/	3,240	2,266	/	1,899	0	/	0	1,240	/	1,023	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	184	1,207	0	0	822	367	0	0	0	190	0	449	3,219
	APPROACH %	13%	87%	0%	0%	69%	31%	0%	0%	0%	30%	0%	70%	
	PEAK HR FACTOR		0.955			0.950			0.000			0.913		0.956
	APP/DEPART	1,391	/	1,656	1,189	/	1,012	0	/	0	639	/	551	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	44	0	33
0	54	0	42
0	36	0	47
0	39	0	38
0	34	0	43
0	31	0	48
0	26	0	41
0	19	0	38
0	283	0	330
0	173	0	160
0	35	0	23
0	30	0	33
0	42	0	24
0	27	0	31
0	28	0	17
0	41	0	31
0	35	0	29
0	23	0	26
0	261	0	214
0	138	0	103

Riverside

NORTH SIDE

I-10 WB Ramps WEST SIDE EAST SIDE **I-10 WB Ramps**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	3
TUESDAY	EAST & WEST:	I-10 WB Ramps	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 WB Ramps			WESTBOUND I-10 WB Ramps			
	LANES:	NL 2	NT 3	NR X	SL X	ST 4	SR 1	EL X	ET X	ER X	WL 1.3	WT 0.3	WR 1.3	TOTAL
AM	7:00 AM	4	15	0	0	9	4	0	0	0	7	0	2	41
	7:15 AM	9	7	0	0	9	4	0	0	0	11	0	4	44
	7:30 AM	5	6	0	0	13	2	0	0	0	6	0	2	34
	7:45 AM	4	4	0	0	7	5	0	0	0	7	0	2	29
	8:00 AM	1	7	0	0	11	6	0	0	0	3	0	4	32
	8:15 AM	3	8	0	0	10	5	0	0	0	5	0	4	35
	8:30 AM	3	12	0	0	9	4	0	0	0	6	0	2	36
	8:45 AM	1	13	0	0	10	4	0	0	0	6	0	10	44
	VOLUMES	30	72	0	0	78	34	0	0	0	51	0	30	295
	APPROACH %	29%	71%	0%	0%	70%	30%	0%	0%	0%	63%	0%	37%	
	APP/DEPART	102	/	102	112	/	129	0	/	0	81	/	64	0
	BEGIN PEAK HR	7:00 AM												
	VOLUMES	22	32	0	0	38	15	0	0	0	31	0	10	148
	APPROACH %	41%	59%	0%	0%	72%	28%	0%	0%	0%	76%	0%	24%	
	PEAK HR FACTOR	0.711			0.883			0.000			0.683			0.841
	APP/DEPART	54	/	42	53	/	69	0	/	0	41	/	37	0
PM	4:00 PM	4	15	0	0	9	0	0	0	0	10	0	7	45
	4:15 PM	0	13	0	0	6	1	0	0	0	6	0	2	28
	4:30 PM	0	16	0	0	7	0	0	0	0	10	0	6	39
	4:45 PM	3	7	0	0	5	1	0	0	0	12	0	5	33
	5:00 PM	0	10	0	0	4	3	0	0	0	15	0	1	33
	5:15 PM	1	13	0	0	6	2	0	0	0	6	0	4	32
	5:30 PM	1	8	0	0	2	1	0	0	0	7	1	2	22
	5:45 PM	0	8	0	0	5	0	0	0	0	5	0	2	20
	VOLUMES	9	90	0	0	44	8	0	0	0	71	1	29	252
	APPROACH %	9%	91%	0%	0%	85%	15%	0%	0%	0%	70%	1%	29%	
	APP/DEPART	99	/	119	52	/	115	0	/	0	101	/	18	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	4	46	0	0	22	6	0	0	0	43	0	16	137
	APPROACH %	8%	92%	0%	0%	79%	21%	0%	0%	0%	73%	0%	27%	
	PEAK HR FACTOR	0.781			0.875			0.000			0.868			0.878
	APP/DEPART	50	/	62	28	/	65	0	/	0	59	/	10	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	2	0	0
0	0	0	2
0	1	0	1
0	2	0	0
0	1	0	4
0	1	0	2
0	2	0	0
0	3	0	3
0	12	0	12
0	5	0	3
0	0	0	2
0	0	0	1
0	0	0	1
0	0	0	1
0	1	0	0
0	0	0	2
0	0	0	1
0	0	0	0
0	1	0	8
0	1	0	4

Riverside

NORTH SIDE

I-10 WB Ramps WEST SIDE EAST SIDE **I-10 WB Ramps**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	3
TUESDAY	EAST & WEST:	I-10 WB Ramps	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

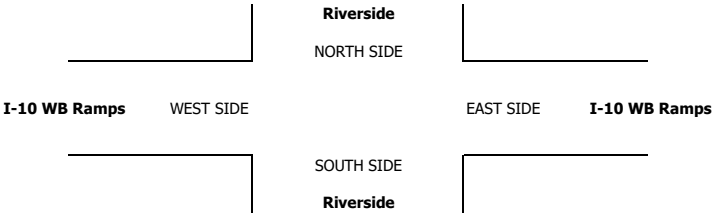
		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 WB Ramps			WESTBOUND I-10 WB Ramps			
	LANES:	NL 2	NT 3	NR X	SL X	ST 4	SR 1	EL X	ET X	ER X	WL 1.3	WT 0.3	WR 1.3	TOTAL
AM	7:00 AM	3	1	0	0	5	2	0	0	0	0	0	1	12
	7:15 AM	6	6	0	0	0	1	0	0	0	3	0	1	17
	7:30 AM	8	0	0	0	1	0	0	0	0	6	0	1	16
	7:45 AM	4	3	0	0	1	0	0	0	0	4	0	0	12
	8:00 AM	3	3	0	0	4	1	0	0	0	3	0	0	14
	8:15 AM	4	3	0	0	1	2	0	0	0	5	0	1	16
	8:30 AM	9	2	0	0	3	4	0	0	0	2	0	0	20
	8:45 AM	2	1	0	0	1	2	0	0	0	4	0	1	11
	VOLUMES	39	19	0	0	16	12	0	0	0	27	0	5	118
	APPROACH %	67%	33%	0%	0%	57%	43%	0%	0%	0%	84%	0%	16%	
	APP/DEPART	58	/	24	28	/	43	0	/	0	32	/	51	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	21	10	0	0	7	3	0	0	0	13	0	3	57
	APPROACH %	68%	32%	0%	0%	70%	30%	0%	0%	0%	81%	0%	19%	
	PEAK HR FACTOR		0.646			0.357			0.000			0.571		0.838
	APP/DEPART	31	/	13	10	/	20	0	/	0	16	/	24	0
PM	4:00 PM	0	4	0	0	0	1	0	0	0	2	0	2	9
	4:15 PM	6	0	0	0	1	0	0	0	0	1	0	0	8
	4:30 PM	4	6	0	0	1	1	0	0	0	7	0	0	19
	4:45 PM	3	3	0	0	6	1	0	0	0	0	0	0	13
	5:00 PM	3	1	0	0	1	0	0	0	0	2	0	0	7
	5:15 PM	1	3	0	0	2	3	0	0	0	1	0	0	10
	5:30 PM	3	1	0	0	4	0	0	0	0	4	0	2	14
	5:45 PM	2	2	0	0	2	0	0	0	0	4	0	0	10
	VOLUMES	22	20	0	0	17	6	0	0	0	21	0	4	90
	APPROACH %	52%	48%	0%	0%	74%	26%	0%	0%	0%	84%	0%	16%	
	APP/DEPART	42	/	24	23	/	38	0	/	0	25	/	28	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	11	13	0	0	10	5	0	0	0	10	0	0	49
	APPROACH %	46%	54%	0%	0%	67%	33%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.600			0.536			0.000			0.357		0.645
	APP/DEPART	24	/	13	15	/	20	0	/	0	10	/	16	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	1	0	1
0	0	0	1
0	0	0	1
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	3	0	3
0	1	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	3	0	0
0	0	0	0
0	0	0	0
0	4	0	0
0	4	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	3
TUESDAY	EAST & WEST:	I-10 WB Ramps	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

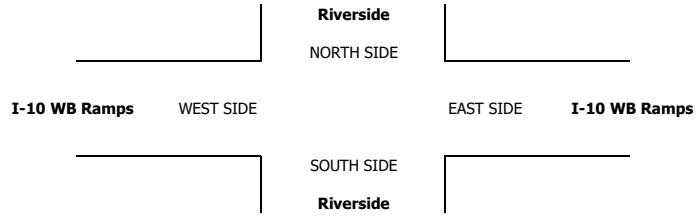
		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (I-10 WB Ramps)			WESTBOUND (I-10 WB Ramps)			
	LANES:	NL 2	NT 3	NR X	SL X	ST 4	SR 1	EL X	ET X	ER X	WL 1.3	WT 0.3	WR 1.3	TOTAL
AM	7:00 AM	21	4	0	0	5	2	0	0	0	10	0	1	43
	7:15 AM	13	3	0	0	5	4	0	0	0	14	0	1	40
	7:30 AM	11	8	0	0	5	1	0	0	0	7	0	1	33
	7:45 AM	18	4	0	0	6	3	0	0	0	13	0	0	44
	8:00 AM	21	4	0	0	3	2	0	0	0	9	0	4	43
	8:15 AM	12	3	0	0	3	3	0	0	0	10	0	0	31
	8:30 AM	19	4	0	0	8	3	0	0	0	14	0	2	50
	8:45 AM	12	8	0	0	4	2	0	0	0	24	0	2	52
	VOLUMES	127	38	0	0	39	20	0	0	0	101	0	11	336
	APPROACH %	77%	23%	0%	0%	66%	34%	0%	0%	0%	90%	0%	10%	
	APP/DEPART	165	/	49	59	/	140	0	/	0	112	/	147	0
	BEGIN PEAK HR	7:00 AM												
	VOLUMES	63	19	0	0	21	10	0	0	0	44	0	3	160
	APPROACH %	77%	23%	0%	0%	68%	32%	0%	0%	0%	94%	0%	6%	
	PEAK HR FACTOR	0.820			0.861			0.000			0.783			0.909
	APP/DEPART	82	/	22	31	/	65	0	/	0	47	/	73	0
PM	4:00 PM	9	5	0	0	4	1	0	0	0	14	0	1	34
	4:15 PM	13	2	0	0	4	4	0	0	0	26	0	2	51
	4:30 PM	10	4	0	0	3	0	0	0	0	16	0	1	34
	4:45 PM	7	4	0	0	1	2	0	0	0	9	0	1	24
	5:00 PM	9	3	0	0	1	1	0	0	0	10	0	1	25
	5:15 PM	14	3	0	0	2	0	0	0	0	12	0	0	31
	5:30 PM	4	4	0	0	3	2	0	0	0	17	0	0	30
	5:45 PM	13	5	0	0	1	0	0	0	0	9	0	0	28
	VOLUMES	79	30	0	0	19	10	0	0	0	113	0	6	257
	APPROACH %	72%	28%	0%	0%	66%	34%	0%	0%	0%	95%	0%	5%	
	APP/DEPART	109	/	36	29	/	132	0	/	0	119	/	89	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	40	14	0	0	7	3	0	0	0	47	0	3	114
	APPROACH %	74%	26%	0%	0%	70%	30%	0%	0%	0%	94%	0%	6%	
	PEAK HR FACTOR	0.794			0.833			0.000			0.735			0.838
	APP/DEPART	54	/	17	10	/	54	0	/	0	50	/	43	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	0	0	0
0	1	0	0
0	0	0	0
0	2	0	0
0	0	0	2
0	1	0	0
0	1	0	1
0	0	0	1
0	5	0	4
0	3	0	0
0	0	0	0
0	2	0	0
0	0	0	0
0	1	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	4	0	1
0	2	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	3
TUESDAY	EAST & WEST:	I-10 WB Ramps	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (I-10 WB Ramps)			WESTBOUND (I-10 WB Ramps)			
	LANES:	NL 2	NT 3	NR X	SL X	ST 4	SR 1	EL X	ET X	ER X	WL 1.3	WT 0.3	WR 1.3	TOTAL
AM	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	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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	1	0	0	1
	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	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	VOLUMES	1	0	0	0	0	0	0	0	0	1	0	1	3
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	50%	
	APP/DEPART	1	/	1	0	/	1	0	/	0	2	/	1	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
	APP/DEPART	1	/	0	0	/	0	0	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Riverside

NORTH SIDE

I-10 WB Ramps WEST SIDE EAST SIDE **I-10 WB Ramps**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	3
TUESDAY	EAST & WEST:	I-10 WB Ramps	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

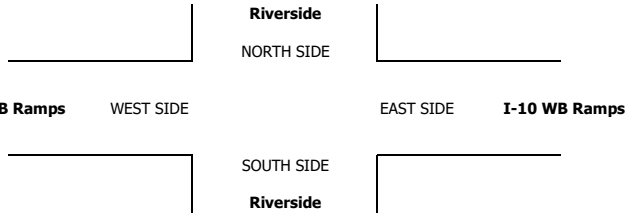
		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 WB Ramps			WESTBOUND I-10 WB Ramps			
	LANES:	NL 2	NT 3	NR X	SL X	ST 4	SR 1	EL X	ET X	ER X	WL 1.3	WT 0.3	WR 1.3	TOTAL
AM	7:00 AM	1	2	0	0	3	0	0	0	0	0	0	2	8
	7:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	2
	7:30 AM	0	0	0	0	1	0	0	0	0	1	0	0	2
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:00 AM	0	1	0	0	0	0	0	0	0	0	0	1	2
	8:15 AM	0	0	0	0	5	0	0	0	0	2	0	0	7
	8:30 AM	0	0	0	0	6	0	0	0	0	1	0	1	8
	8:45 AM	0	0	0	0	4	0	0	0	0	0	0	4	8
	VOLUMES	1	4	0	0	20	0	0	0	0	5	0	8	38
	APPROACH %	20%	80%	0%	0%	100%	0%	0%	0%	0%	38%	0%	62%	
	APP/DEPART	5	/	12	20	/	25	0	/	0	13	/	1	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	3	0	0	5	0	0	0	0	2	0	2	13
	APPROACH %	25%	75%	0%	0%	100%	0%	0%	0%	0%	50%	0%	50%	
	PEAK HR FACTOR		0.333			0.417			0.000			0.500		0.406
	APP/DEPART	4	/	5	5	/	7	0	/	0	4	/	1	0
PM	4:00 PM	0	0	0	0	4	0	0	0	0	0	0	0	4
	4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	8	0	0	0	0	0	0	0	8
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	8	/	8	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	2	0	0	0	0	0	0	0	2
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.500			0.000			0.000		0.500
	APP/DEPART	0	/	0	2	/	2	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	2
0	0	0	3
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Feb 15, 22

LOCATION: Rialto
NORTH & SOUTH: Riverside
EAST & WEST: I-10 EB Ramps

PROJECT #: SC3292
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

N ▲ S ▼ ◄ W E ►

☑ Add U-Turns to Left Turns

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 EB Ramps			WESTBOUND I-10 EB Ramps			
	LANES:	NL X	NT 2.5	NR 0.5	SL 2	ST 2	SR X	EL 1.3	ET 0.3	ER 1.3	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	142	77	84	211	0	48	0	68	0	0	0	630
	7:15 AM	0	92	56	118	227	0	59	0	73	0	0	0	625
	7:30 AM	0	155	67	97	265	0	79	0	90	0	0	0	753
	7:45 AM	0	133	82	134	241	0	81	3	97	0	0	0	771
	8:00 AM	0	114	67	78	220	0	64	0	76	0	0	0	619
	8:15 AM	0	121	58	74	186	0	76	0	64	0	0	0	579
	8:30 AM	0	114	64	76	235	0	65	0	80	0	0	0	634
	8:45 AM	0	108	76	85	239	0	89	0	64	0	0	0	661
	VOLUMES	0	979	547	746	1,824	0	561	3	612	0	0	0	5,272
	APPROACH %	0%	64%	36%	29%	71%	0%	48%	0%	52%	0%	0%	0%	
	APP/DEPART	1,526	/	1,540	2,570	/	2,436	1,176	/	1,296	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	522	282	433	944	0	267	3	328	0	0	0	2,779
	APPROACH %	0%	65%	35%	31%	69%	0%	45%	1%	55%	0%	0%	0%	
	PEAK HR FACTOR		0.905			0.918			0.826			0.000		0.901
	APP/DEPART	804	/	789	1,377	/	1,272	598	/	718	0	/	0	0
PM	4:00 PM	0	221	132	88	222	0	149	0	84	0	0	0	896
	4:15 PM	0	231	108	85	164	0	114	0	125	0	0	0	827
	4:30 PM	0	244	134	74	235	0	127	0	58	0	0	0	872
	4:45 PM	0	270	112	91	195	0	113	0	62	0	0	0	843
	5:00 PM	0	246	111	70	223	0	145	0	77	0	0	0	872
	5:15 PM	0	248	86	82	181	0	126	0	79	0	0	0	802
	5:30 PM	0	223	95	56	214	0	117	1	85	0	0	0	791
	5:45 PM	0	203	78	82	129	0	131	1	94	0	0	0	718
	VOLUMES	0	1,886	856	628	1,563	0	1,022	2	664	0	0	0	6,621
	APPROACH %	0%	69%	31%	29%	71%	0%	61%	0%	39%	0%	0%	0%	
	APP/DEPART	2,742	/	2,909	2,191	/	2,227	1,688	/	1,485	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	966	486	338	816	0	503	0	329	0	0	0	3,438
	APPROACH %	0%	67%	33%	29%	71%	0%	60%	0%	40%	0%	0%	0%	
	PEAK HR FACTOR		0.950			0.931			0.870			0.000		0.959
	APP/DEPART	1,452	/	1,470	1,154	/	1,145	832	/	823	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1

RTOR

NRR	SRR	ERR	WRR
0	X	0	X
19	0	30	0
19	0	29	0
12	0	35	0
6	0	26	0
10	0	34	0
13	0	25	0
9	0	16	0
17	0	24	0
105	0	219	0
56	0	120	0
18	0	40	0
12	0	52	0
28	0	25	0
10	0	35	0
11	0	40	0
12	0	35	0
20	0	43	0
9	0	45	0
120	0	315	0
68	0	152	0

Riverside

NORTH SIDE

I-10 EB Ramps WEST SIDE EAST SIDE **I-10 EB Ramps**

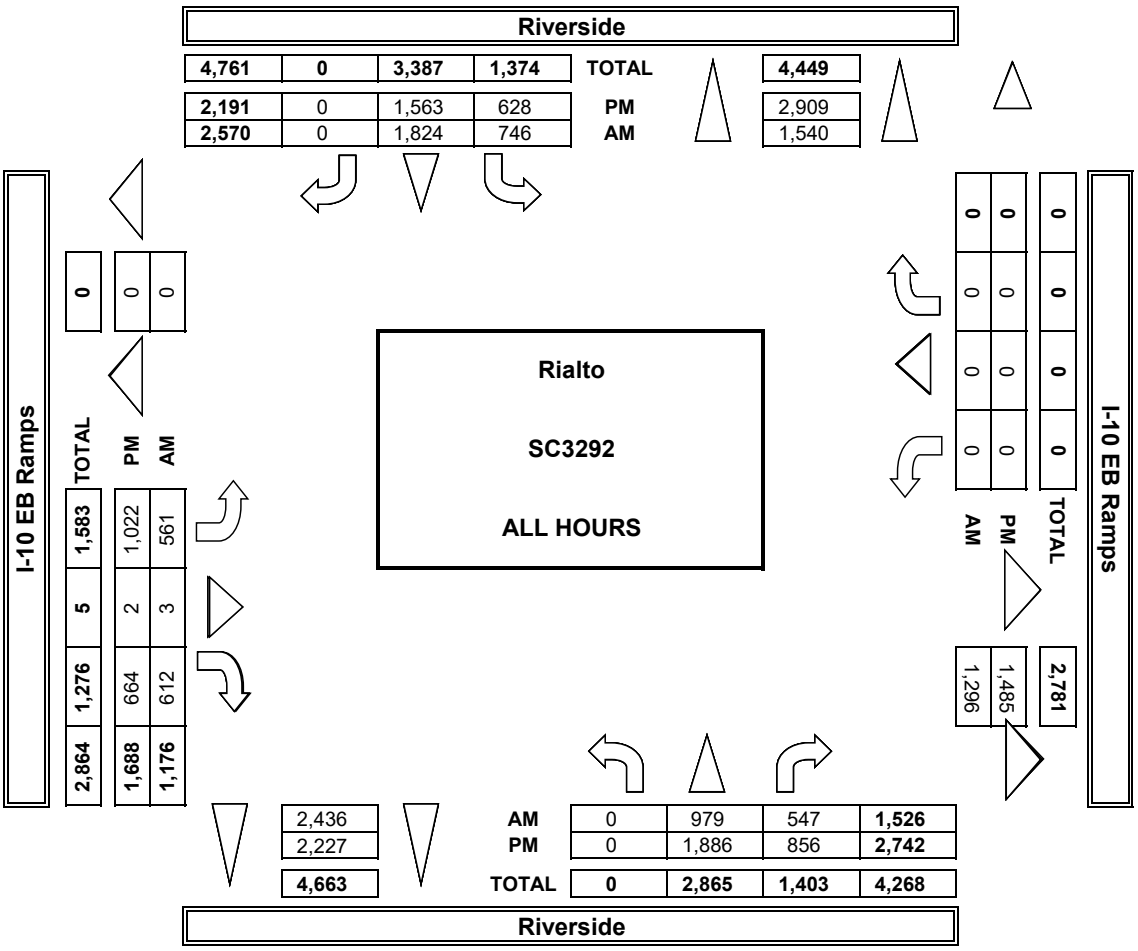
SOUTH SIDE

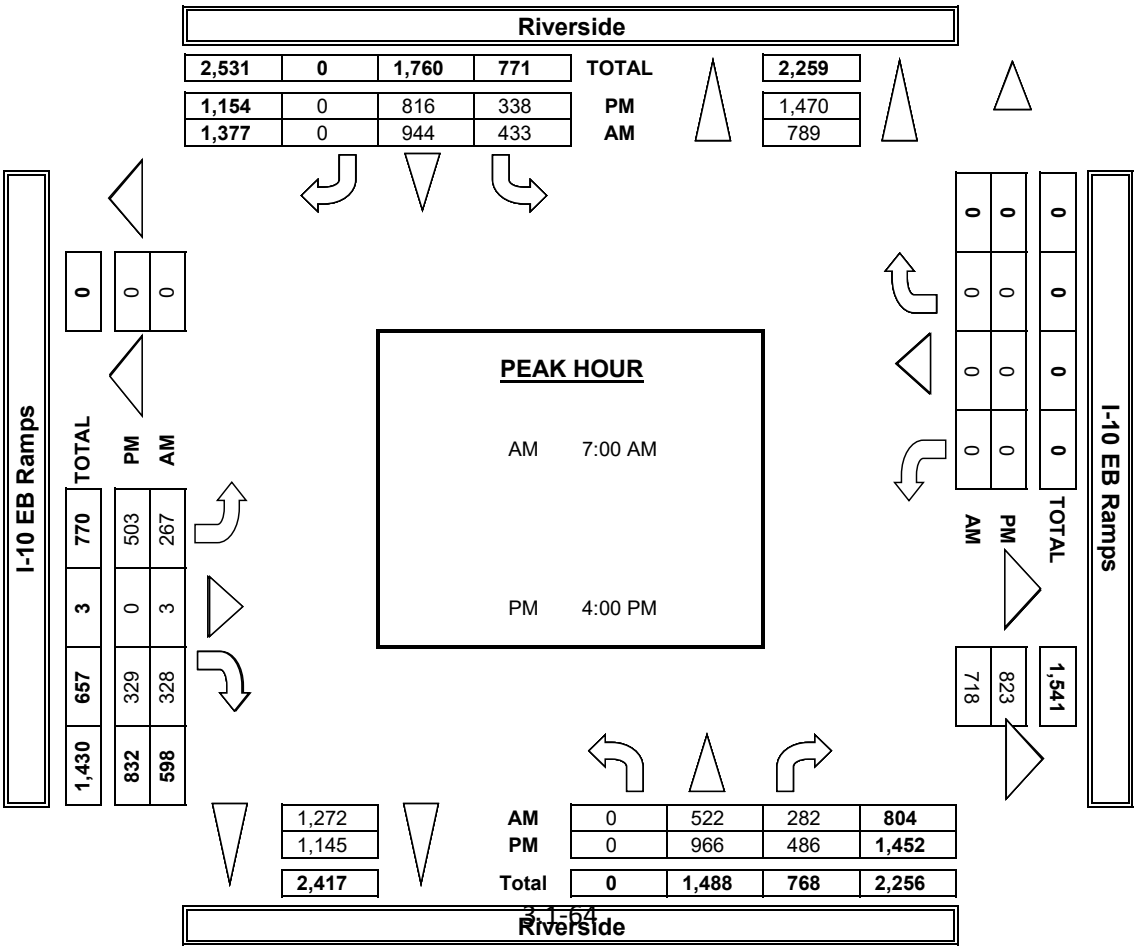
Riverside

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:15 AM	3	0	0	0	3	1	0	0	0	1	2	0	0	0	2
	8:30 AM	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
	8:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	8	1	0	0	9	3	1	0	0	4	5	0	0	0	5
PM	4:00 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	4
TUESDAY	EAST & WEST:	I-10 EB Ramps	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

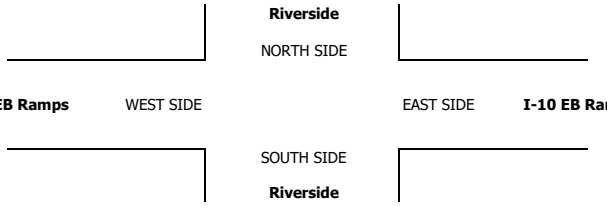
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 EB Ramps			WESTBOUND I-10 EB Ramps			
	LANES:	NL X	NT 2.5	NR 0.5	SL 2	ST 2	SR X	EL 1.3	ET 0.3	ER 1.3	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	99	41	75	181	0	40	0	44	0	0	0	480
	7:15 AM	0	57	34	112	190	0	49	0	45	0	0	0	487
	7:30 AM	0	126	43	88	234	0	70	0	69	0	0	0	630
	7:45 AM	0	101	42	128	208	0	76	1	73	0	0	0	629
	8:00 AM	0	80	41	75	190	0	58	0	47	0	0	0	491
	8:15 AM	0	92	27	68	151	0	72	0	41	0	0	0	451
	8:30 AM	0	70	34	68	194	0	60	0	39	0	0	0	465
	8:45 AM	0	82	42	79	192	0	78	0	39	0	0	0	512
	VOLUMES	0	707	304	693	1,540	0	503	1	397	0	0	0	4,145
	APPROACH %	0%	70%	30%	31%	69%	0%	56%	0%	44%	0%	0%	0%	
	APP/DEPART	1,011	/	1,210	2,233	/	1,937	901	/	998	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	383	160	403	813	0	235	1	231	0	0	0	2,226
	APPROACH %	0%	71%	29%	33%	67%	0%	50%	0%	49%	0%	0%	0%	
	PEAK HR FACTOR		0.803			0.905			0.778			0.000		0.883
	APP/DEPART	543	/	618	1,216	/	1,044	467	/	564	0	/	0	0
PM	4:00 PM	0	197	112	84	183	0	136	0	58	0	0	0	770
	4:15 PM	0	204	83	81	121	0	107	0	95	0	0	0	691
	4:30 PM	0	214	109	69	196	0	117	0	35	0	0	0	740
	4:45 PM	0	249	92	87	165	0	107	0	50	0	0	0	750
	5:00 PM	0	224	95	68	192	0	140	0	54	0	0	0	773
	5:15 PM	0	219	70	78	155	0	120	0	57	0	0	0	699
	5:30 PM	0	208	66	55	178	0	111	1	57	0	0	0	676
	5:45 PM	0	179	61	77	108	0	125	1	68	0	0	0	619
	VOLUMES	0	1,694	688	599	1,298	0	963	2	474	0	0	0	5,718
	APPROACH %	0%	71%	29%	32%	68%	0%	67%	0%	33%	0%	0%	0%	
	APP/DEPART	2,382	/	2,658	1,897	/	1,772	1,439	/	1,288	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	864	396	320	665	0	467	0	238	0	0	0	2,951
	APPROACH %	0%	69%	31%	32%	67%	0%	66%	0%	34%	0%	0%	0%	
	PEAK HR FACTOR		0.924			0.923			0.873			0.000		0.958
	APP/DEPART	1,260	/	1,332	986	/	903	705	/	716	0	/	0	0

U-TURNS					
	NB	SB	EB	WB	TTL
AM	0	0	0	0	0
PM	0	1	0	0	1

RTOR				
	NRR 0	SRR X	ERR 0	WRR X
AM	62	0	173	0
	33	0	100	0
PM	94	0	265	0
	54	0	132	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	4
TUESDAY	EAST & WEST:	I-10 EB Ramps	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

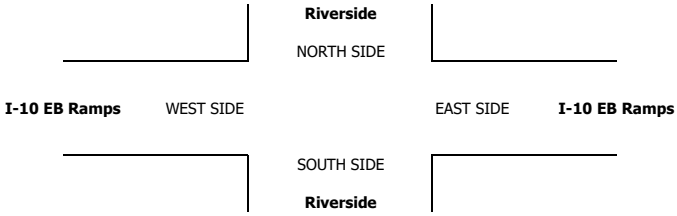
		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 EB Ramps			WESTBOUND I-10 EB Ramps			
	LANES:	NL X	NT 2.5	NR 0.5	SL 2	ST 2	SR X	EL 1.3	ET 0.3	ER 1.3	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	15	6	5	11	0	4	0	5	0	0	0	46
	7:15 AM	0	14	2	6	14	0	2	0	5	0	0	0	43
	7:30 AM	0	8	4	6	13	0	3	0	7	0	0	0	41
	7:45 AM	0	6	13	1	13	0	2	2	3	0	0	0	40
	8:00 AM	0	4	3	2	12	0	4	0	9	0	0	0	34
	8:15 AM	0	8	7	3	12	0	3	0	4	0	0	0	37
	8:30 AM	0	11	5	4	11	0	4	0	2	0	0	0	37
	8:45 AM	0	10	7	3	13	0	4	0	4	0	0	0	41
	VOLUMES	0	76	47	30	99	0	26	2	39	0	0	0	319
	APPROACH %	0%	62%	38%	23%	77%	0%	39%	3%	58%	0%	0%	0%	
	APP/DEPART	123	/	102	129	/	138	67	/	79	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	43	25	18	51	0	11	2	20	0	0	0	170
	APPROACH %	0%	63%	37%	26%	74%	0%	33%	6%	61%	0%	0%	0%	
	PEAK HR FACTOR		0.810			0.863			0.825			0.000		0.924
	APP/DEPART	68	/	54	69	/	71	33	/	45	0	/	0	0
PM	4:00 PM	0	13	5	4	15	0	6	0	3	0	0	0	46
	4:15 PM	0	9	3	2	10	0	4	0	5	0	0	0	33
	4:30 PM	0	10	8	4	13	0	6	0	5	0	0	0	46
	4:45 PM	0	9	4	4	13	0	1	0	3	0	0	0	34
	5:00 PM	0	7	3	2	17	0	3	0	6	0	0	0	38
	5:15 PM	0	9	2	1	11	0	5	0	4	0	0	0	32
	5:30 PM	0	6	4	0	9	0	3	0	7	0	0	0	29
	5:45 PM	0	5	0	3	7	0	3	0	1	0	0	0	19
	VOLUMES	0	68	29	20	95	0	31	0	34	0	0	0	277
	APPROACH %	0%	70%	30%	17%	83%	0%	48%	0%	52%	0%	0%	0%	
	APP/DEPART	97	/	99	115	/	129	65	/	49	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	41	20	14	51	0	17	0	16	0	0	0	159
	APPROACH %	0%	67%	33%	22%	78%	0%	52%	0%	48%	0%	0%	0%	
	PEAK HR FACTOR		0.847			0.855			0.750			0.000		0.864
	APP/DEPART	61	/	58	65	/	67	33	/	34	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
2	0	2	0
1	0	2	0
0	0	3	0
0	0	2	0
1	0	5	0
4	0	1	0
1	0	1	0
3	0	1	0
12	0	17	0
3	0	9	0
1	0	2	0
1	0	3	0
4	0	2	0
0	0	2	0
1	0	4	0
0	0	2	0
2	0	5	0
0	0	0	0
9	0	20	0
6	0	9	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	4
TUESDAY	EAST & WEST:	I-10 EB Ramps	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 EB Ramps			WESTBOUND I-10 EB Ramps			
	LANES:	NL X	NT 2.5	NR 0.5	SL 2	ST 2	SR X	EL 1.3	ET 0.3	ER 1.3	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	4	6	3	2	0	0	0	1	0	0	0	16
	7:15 AM	0	7	3	0	3	0	5	0	4	0	0	0	22
	7:30 AM	0	6	4	1	6	0	2	0	7	0	0	0	26
	7:45 AM	0	6	7	1	4	0	1	0	4	0	0	0	23
	8:00 AM	0	5	4	0	7	0	1	0	4	0	0	0	21
	8:15 AM	0	7	1	0	6	0	0	0	5	0	0	0	19
	8:30 AM	0	11	4	1	4	0	0	0	13	0	0	0	33
	8:45 AM	0	1	4	1	4	0	2	0	3	0	0	0	15
	VOLUMES	0	47	33	7	36	0	11	0	41	0	0	0	175
	APPROACH %	0%	59%	41%	16%	84%	0%	21%	0%	79%	0%	0%	0%	
	APP/DEPART	80	/	58	43	/	77	52	/	40	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	23	20	5	15	0	8	0	16	0	0	0	87
	APPROACH %	0%	53%	47%	25%	75%	0%	33%	0%	67%	0%	0%	0%	
	PEAK HR FACTOR		0.827			0.714			0.667			0.000		0.837
	APP/DEPART	43	/	31	20	/	31	24	/	25	0	/	0	0
PM	4:00 PM	0	1	4	0	2	0	3	0	5	0	0	0	15
	4:15 PM	0	5	4	0	2	0	1	0	9	0	0	0	21
	4:30 PM	0	8	4	0	8	0	2	0	2	0	0	0	24
	4:45 PM	0	3	3	0	6	0	3	0	3	0	0	0	18
	5:00 PM	0	4	0	0	3	0	0	0	3	0	0	0	10
	5:15 PM	0	4	1	1	2	0	0	0	3	0	0	0	11
	5:30 PM	0	3	3	0	8	0	1	0	7	0	0	0	22
	5:45 PM	0	4	6	0	6	0	0	0	10	0	0	0	26
	VOLUMES	0	32	25	1	37	0	10	0	42	0	0	0	147
	APPROACH %	0%	56%	44%	3%	97%	0%	19%	0%	81%	0%	0%	0%	
	APP/DEPART	57	/	42	38	/	79	52	/	26	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	17	15	0	18	0	9	0	19	0	0	0	78
	APPROACH %	0%	53%	47%	0%	100%	0%	32%	0%	68%	0%	0%	0%	
	PEAK HR FACTOR		0.667			0.563			0.700			0.000		0.813
	APP/DEPART	32	/	26	18	/	37	28	/	15	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
1	0	1	0
1	0	1	0
1	0	3	0
1	0	1	0
0	0	0	0
0	0	1	0
0	0	2	0
0	0	1	0
4	0	10	0
4	0	6	0
0	0	4	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
1	0	5	0
1	0	5	0
3	0	16	0
1	0	5	0

Riverside

NORTH SIDE

I-10 EB Ramps WEST SIDE EAST SIDE **I-10 EB Ramps**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	4
TUESDAY	EAST & WEST:	I-10 EB Ramps	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

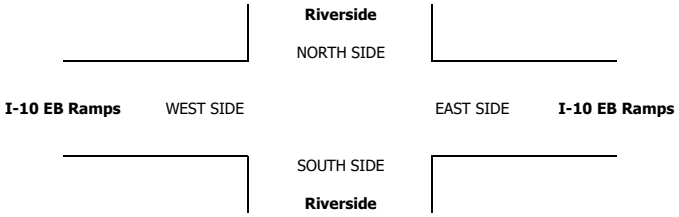
		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 EB Ramps			WESTBOUND I-10 EB Ramps			
	LANES:	NL X	NT 2.5	NR 0.5	SL 2	ST 2	SR X	EL 1.3	ET 0.3	ER 1.3	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	21	24	0	15	0	4	0	18	0	0	0	82
	7:15 AM	0	13	17	0	19	0	3	0	19	0	0	0	71
	7:30 AM	0	15	16	1	11	0	4	0	7	0	0	0	54
	7:45 AM	0	20	19	3	16	0	2	0	17	0	0	0	77
	8:00 AM	0	24	19	1	11	0	1	0	15	0	0	0	71
	8:15 AM	0	14	23	3	10	0	1	0	14	0	0	0	65
	8:30 AM	0	22	20	3	19	0	1	0	24	0	0	0	89
	8:45 AM	0	15	23	1	27	0	5	0	18	0	0	0	89
	VOLUMES	0	144	161	12	128	0	21	0	132	0	0	0	598
	APPROACH %	0%	47%	53%	9%	91%	0%	14%	0%	86%	0%	0%	0%	
	APP/DEPART	305	/	165	140	/	260	153	/	173	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	69	76	4	61	0	13	0	61	0	0	0	284
	APPROACH %	0%	48%	52%	6%	94%	0%	18%	0%	82%	0%	0%	0%	
	PEAK HR FACTOR		0.806			0.855			0.841			0.000		0.866
	APP/DEPART	145	/	82	65	/	122	74	/	80	0	/	0	0
PM	4:00 PM	0	10	11	0	18	0	4	0	18	0	0	0	61
	4:15 PM	0	13	18	2	28	0	2	0	16	0	0	0	79
	4:30 PM	0	12	13	1	18	0	2	0	16	0	0	0	62
	4:45 PM	0	9	13	0	10	0	2	0	6	0	0	0	40
	5:00 PM	0	10	13	0	11	0	2	0	14	0	0	0	50
	5:15 PM	0	16	13	2	12	0	1	0	15	0	0	0	59
	5:30 PM	0	6	22	1	19	0	2	0	14	0	0	0	64
	5:45 PM	0	15	11	2	8	0	3	0	15	0	0	0	54
	VOLUMES	0	91	114	8	124	0	18	0	114	0	0	0	469
	APPROACH %	0%	44%	56%	6%	94%	0%	14%	0%	86%	0%	0%	0%	
	APP/DEPART	205	/	109	132	/	238	132	/	122	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	44	55	3	74	0	10	0	56	0	0	0	242
	APPROACH %	0%	44%	56%	4%	96%	0%	15%	0%	85%	0%	0%	0%	
	PEAK HR FACTOR		0.798			0.642			0.750			0.000		0.766
	APP/DEPART	99	/	54	77	/	130	66	/	58	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
7	0	1	0
2	0	4	0
2	0	0	0
4	0	0	0
1	0	4	0
3	0	2	0
2	0	2	0
5	0	5	0
26	0	18	0
15	0	5	0
1	0	1	0
0	0	2	0
3	0	2	0
3	0	1	0
2	0	3	0
1	0	2	0
2	0	2	0
2	0	1	0
14	0	14	0
7	0	6	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	4
TUESDAY	EAST & WEST:	I-10 EB Ramps	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

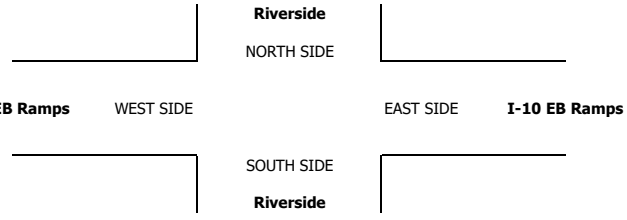
		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (I-10 EB Ramps)			WESTBOUND (I-10 EB Ramps)			
	LANES:	NL X	NT 2.5	NR 0.5	SL 2	ST 2	SR X	EL 1.3	ET 0.3	ER 1.3	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 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	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	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	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	4
TUESDAY	EAST & WEST:	I-10 EB Ramps	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

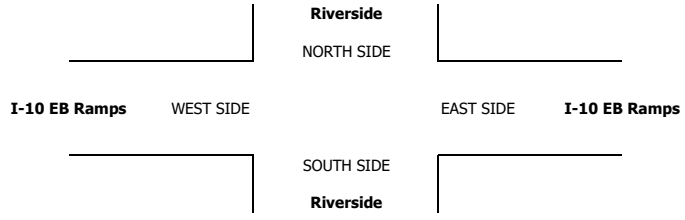
		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND I-10 EB Ramps			WESTBOUND I-10 EB Ramps			
	LANES:	NL X	NT 2.5	NR 0.5	SL 2	ST 2	SR X	EL 1.3	ET 0.3	ER 1.3	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	3	0	1	2	0	0	0	0	0	0	0	6
	7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	7:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	2
	7:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	2
	8:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	2
	8:15 AM	0	0	0	0	7	0	0	0	0	0	0	0	7
	8:30 AM	0	0	1	0	7	0	0	0	2	0	0	0	10
	8:45 AM	0	0	0	1	3	0	0	0	0	0	0	0	4
	VOLUMES	0	5	2	4	21	0	0	0	3	0	0	0	35
	APPROACH %	0%	71%	29%	16%	84%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	7	/	5	25	/	24	3	/	6	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	4	1	3	4	0	0	0	0	0	0	0	12
	APPROACH %	0%	80%	20%	43%	57%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.417			0.583			0.000			0.000		0.500
	APP/DEPART	5	/	4	7	/	4	0	/	4	0	/	0	0
PM	4:00 PM	0	0	0	0	4	0	0	0	0	0	0	0	4
	4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	8	0	0	0	0	0	0	0	8
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	8	/	8	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	7	0	0	0	0	0	0	0	7
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.438			0.000			0.000		0.438
	APP/DEPART	0	/	0	7	/	7	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	1	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Feb 15, 22

LOCATION: Rialto
NORTH & SOUTH: Riverside
EAST & WEST: Slover

PROJECT #: SC3292
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND Slover			WESTBOUND Slover			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	7	148	7	2	197	75	51	4	10	1	1	10	513
	7:15 AM	8	122	1	2	234	81	45	5	5	5	3	1	512
	7:30 AM	12	148	3	4	242	78	50	7	7	3	8	7	569
	7:45 AM	15	164	6	7	248	104	49	12	10	4	2	11	632
	8:00 AM	7	113	2	6	206	79	38	6	10	5	4	3	479
	8:15 AM	5	136	3	5	193	68	35	4	8	4	2	8	471
	8:30 AM	6	132	3	7	208	79	46	5	6	5	1	7	505
	8:45 AM	11	145	3	4	206	103	46	11	11	6	1	9	556
	VOLUMES	71	1,108	28	37	1,734	667	360	54	67	33	22	56	4,237
	APPROACH %	6%	92%	2%	2%	71%	27%	75%	11%	14%	30%	20%	50%	
	APP/DEPART	1,207	/	1,524	2,438	/	1,844	481	/	119	111	/	750	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	42	582	17	15	921	338	195	28	32	13	14	29	2,226
	APPROACH %	7%	91%	3%	1%	72%	27%	76%	11%	13%	23%	25%	52%	
	PEAK HR FACTOR		0.866			0.887			0.898			0.778		0.881
	APP/DEPART	641	/	806	1,274	/	970	255	/	60	56	/	390	0
PM	4:00 PM	7	217	0	5	216	69	71	32	27	4	5	29	682
	4:15 PM	7	231	1	3	269	55	75	31	23	5	3	15	718
	4:30 PM	6	262	0	2	183	69	84	36	20	6	2	17	687
	4:45 PM	9	293	2	4	218	68	70	17	24	4	2	7	718
	5:00 PM	9	226	2	3	207	55	69	30	23	2	2	12	640
	5:15 PM	4	254	1	2	206	72	75	13	25	2	1	11	666
	5:30 PM	4	186	3	4	193	68	76	16	27	1	1	9	588
	5:45 PM	7	205	0	6	215	51	59	19	18	3	2	12	597
	VOLUMES	53	1,874	9	29	1,707	507	579	194	187	27	18	112	5,296
	APPROACH %	3%	97%	0%	1%	76%	23%	60%	20%	19%	17%	11%	71%	
	APP/DEPART	1,936	/	2,565	2,243	/	1,931	960	/	232	157	/	568	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	29	1,003	3	14	886	261	300	116	94	19	12	68	2,805
	APPROACH %	3%	97%	0%	1%	76%	22%	59%	23%	18%	19%	12%	69%	
	PEAK HR FACTOR		0.851			0.888			0.911			0.651		0.977
	APP/DEPART	1,035	/	1,371	1,161	/	1,002	510	/	133	99	/	299	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
1	0	0	0	1
2	0	0	0	2
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
4	0	0	0	4
10	0	0	0	10
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
2	0	0	0	2
4	0	0	0	4
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
10	0	0	0	10

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
1	19	9	4
0	7	1	0
0	16	2	2
0	9	5	9
0	25	5	3
0	4	4	5
1	1	1	3
0	1	6	2
2	82	33	28
1	51	17	15
0	0	12	11
0	0	4	5
0	0	6	4
0	1	10	0
1	0	6	5
0	0	6	4
0	0	9	6
0	3	10	2
1	4	63	37
0	1	32	20

Riverside

NORTH SIDE

Slover WEST SIDE EAST SIDE **Slover**

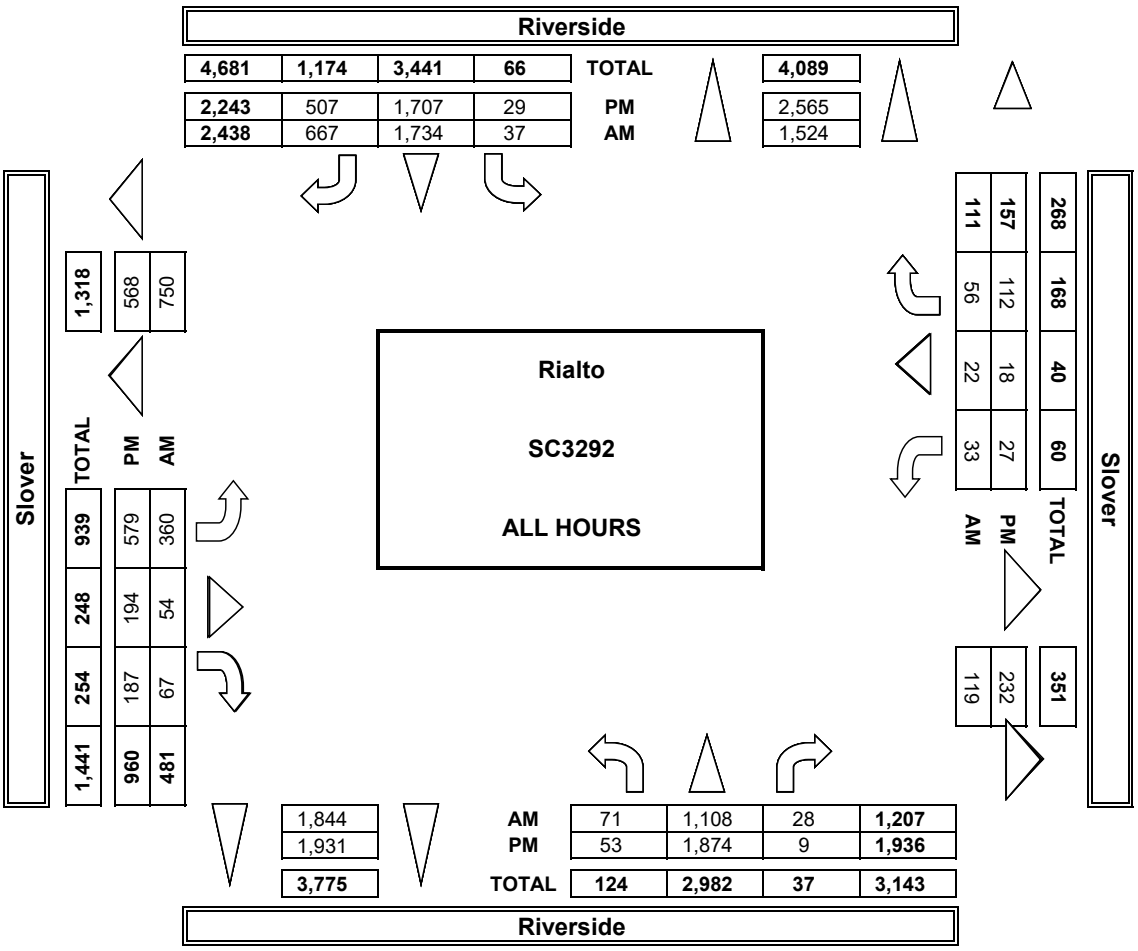
SOUTH SIDE

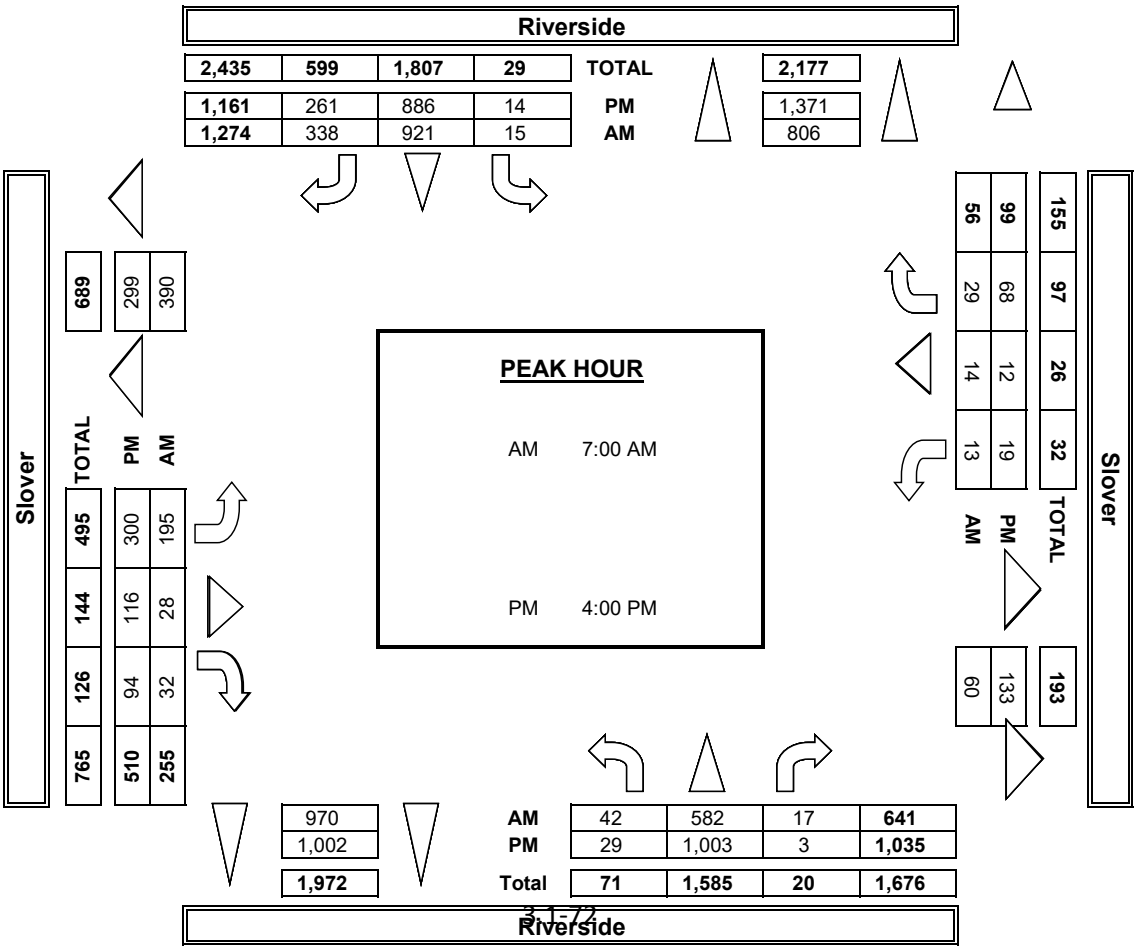
Riverside

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	1	0	1	0	2	1	0	1	0	2	0	0	0	0	0
	7:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	7:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	8:30 AM	1	0	1	0	2	0	0	0	0	0	1	0	1	0	2
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	3	0	3	2	8	1	0	1	0	2	2	0	2	2	6
PM	4:00 PM	0	0	4	0	4	0	0	4	0	4	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	2	0	1	0	3	0	0	0	0	0	2	0	1	0	3
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	2	1	5	0	8	0	0	4	0	4	2	1	1	0	4

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	5
TUESDAY	EAST & WEST:	Slover	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND Slover			WESTBOUND Slover			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	4	87	5	1	155	65	42	4	6	0	1	4	374
	7:15 AM	3	67	0	2	177	70	38	3	3	1	2	1	367
	7:30 AM	7	106	2	4	203	69	38	6	0	0	7	5	447
	7:45 AM	11	114	6	5	202	97	36	9	5	3	1	7	496
	8:00 AM	5	71	1	4	158	72	26	4	3	1	3	1	349
	8:15 AM	2	83	2	3	150	63	26	3	5	2	1	4	344
	8:30 AM	2	83	1	0	137	76	31	3	2	1	1	4	341
	8:45 AM	4	92	1	2	143	96	25	8	7	2	1	5	386
	VOLUMES	38	703	18	21	1,325	608	262	40	31	10	17	31	3,104
	APPROACH %	5%	93%	2%	1%	68%	31%	79%	12%	9%	17%	29%	53%	
	APP/DEPART	759	/	996	1,954	/	1,374	333	/	79	58	/	655	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	22	374	13	12	737	301	154	22	14	4	11	17	1,684
	APPROACH %	5%	91%	3%	1%	70%	29%	81%	12%	7%	13%	34%	53%	
	PEAK HR FACTOR		0.786			0.863			0.913			0.667		0.849
	APP/DEPART	412	/	545	1,050	/	758	190	/	47	32	/	334	0
PM	4:00 PM	6	180	0	2	178	55	68	31	23	2	0	25	570
	4:15 PM	5	192	0	0	205	44	68	28	17	2	2	13	576
	4:30 PM	5	222	0	1	138	52	76	32	14	4	1	15	560
	4:45 PM	5	258	1	2	191	55	62	15	18	1	0	7	615
	5:00 PM	6	194	1	2	174	41	62	30	12	2	1	12	537
	5:15 PM	3	221	1	1	166	59	70	12	13	2	1	9	558
	5:30 PM	4	155	1	1	151	57	65	14	22	0	0	7	477
	5:45 PM	5	176	0	4	177	46	50	18	16	2	1	10	505
	VOLUMES	39	1,598	4	13	1,380	409	521	180	135	15	6	98	4,398
	APPROACH %	2%	97%	0%	1%	77%	23%	62%	22%	16%	13%	5%	82%	
	APP/DEPART	1,641	/	2,217	1,802	/	1,539	836	/	197	119	/	445	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	18	852	1	5	712	206	274	106	72	9	3	60	2,321
	APPROACH %	2%	97%	0%	1%	77%	22%	61%	23%	16%	13%	4%	83%	
	PEAK HR FACTOR		0.828			0.927			0.926			0.667		0.943
	APP/DEPART	874	/	1,186	923	/	796	452	/	112	72	/	227	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
3	0	0	0	3
8	0	0	0	8
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
2	0	0	0	2
4	0	0	0	4
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
9	0	0	0	9

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	19	6	3
0	6	0	0
0	14	0	2
0	8	3	5
0	25	2	1
0	4	3	3
0	1	1	2
0	1	5	2
0	78	20	18
0	47	9	10
0	0	12	8
0	0	4	3
0	0	3	2
0	0	8	0
1	0	4	5
0	0	6	3
0	0	9	4
0	3	10	1
1	3	56	26
0	0	27	13

Riverside

NORTH SIDE

Slover WEST SIDE EAST SIDE **Slover**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	5
TUESDAY	EAST & WEST:	Slover	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

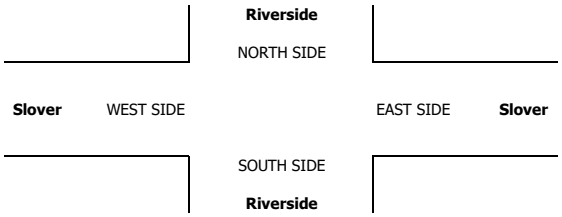
		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (Slover)			WESTBOUND (Slover)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	1	15	0	1	10	4	4	0	2	0	0	2	39
AM	7:15 AM	2	12	0	0	15	6	4	2	1	0	1	0	43
AM	7:30 AM	1	10	0	0	14	2	5	1	2	1	0	0	36
AM	7:45 AM	3	9	0	0	13	5	5	1	1	1	0	2	40
AM	8:00 AM	1	6	0	2	12	5	3	0	2	0	1	0	32
AM	8:15 AM	1	12	0	0	10	2	5	1	2	1	1	2	37
AM	8:30 AM	1	9	0	1	14	0	5	1	0	0	0	0	31
AM	8:45 AM	5	13	0	0	12	1	11	2	1	1	0	2	48
AM	VOLUMES	15	86	0	4	100	25	42	8	11	4	3	8	306
AM	APPROACH %	15%	85%	0%	3%	78%	19%	69%	13%	18%	27%	20%	53%	
AM	APP/DEPART	101	/	136	129	/	117	61	/	12	15	/	41	0
AM	BEGIN PEAK HR	7:00 AM												
AM	VOLUMES	6	46	0	1	52	17	18	4	6	2	1	4	158
AM	APPROACH %	11%	87%	0%	1%	74%	24%	64%	14%	21%	29%	14%	57%	
AM	PEAK HR FACTOR		0.828			0.833			0.875			0.583		0.919
AM	APP/DEPART	53	/	68	70	/	61	28	/	5	7	/	24	0
PM	4:00 PM	0	12	0	0	7	7	2	0	0	2	0	3	33
PM	4:15 PM	1	8	0	0	11	5	2	2	0	0	0	1	30
PM	4:30 PM	0	9	0	0	12	10	3	3	0	0	0	2	39
PM	4:45 PM	0	7	0	0	8	7	4	1	1	0	1	0	29
PM	5:00 PM	0	7	0	1	12	8	2	0	1	0	0	0	31
PM	5:15 PM	0	7	0	0	9	10	2	1	0	0	0	1	30
PM	5:30 PM	0	6	0	0	6	8	3	2	2	0	0	0	27
PM	5:45 PM	1	4	0	0	8	2	2	1	1	0	0	1	20
PM	VOLUMES	2	60	0	1	73	57	20	10	5	2	1	8	239
PM	APPROACH %	3%	97%	0%	1%	56%	44%	57%	29%	14%	18%	9%	73%	
PM	APP/DEPART	62	/	88	131	/	81	35	/	11	11	/	59	0
PM	BEGIN PEAK HR	4:00 PM												
PM	VOLUMES	1	36	0	0	38	29	11	6	1	2	1	6	131
PM	APPROACH %	3%	97%	0%	0%	57%	43%	61%	33%	6%	22%	11%	67%	
PM	PEAK HR FACTOR		0.771			0.761			0.750			0.450		0.840
PM	APP/DEPART	37	/	53	67	/	41	18	/	6	9	/	31	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	2	1
0	1	1	0
0	0	1	0
0	1	0	2
0	0	1	0
0	0	1	2
0	0	0	0
0	0	0	0
0	2	6	5
0	2	4	3
0	0	0	3
0	0	0	1
0	0	0	2
0	0	0	0
0	0	1	0
0	0	0	1
0	0	0	0
0	0	0	1
0	0	1	8
0	0	0	6



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	5
TUESDAY	EAST & WEST:	Slover	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (Slover)			WESTBOUND (Slover)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	2	7	0	0	2	2	2	0	1	0	0	0	16
	7:15 AM	2	9	0	0	4	0	1	0	1	2	0	0	19
	7:30 AM	1	8	0	0	11	4	2	0	3	1	0	0	30
	7:45 AM	0	12	0	1	5	0	1	1	1	0	1	1	23
	8:00 AM	0	6	0	0	10	1	4	1	0	2	0	0	24
	8:15 AM	0	6	0	0	10	1	1	0	0	1	0	0	19
	8:30 AM	1	7	1	0	13	1	5	1	1	1	0	1	32
	8:45 AM	0	5	1	0	7	1	2	0	2	1	0	0	19
	VOLUMES	6	60	2	1	62	10	18	3	9	8	1	2	182
	APPROACH %	9%	88%	3%	1%	85%	14%	60%	10%	30%	73%	9%	18%	
	APP/DEPART	68	/	80	73	/	79	30	/	6	11	/	17	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	5	36	0	1	22	6	6	1	6	3	1	1	88
	APPROACH %	12%	88%	0%	3%	76%	21%	46%	8%	46%	60%	20%	20%	
	PEAK HR FACTOR		0.854			0.483			0.650			0.625		0.733
	APP/DEPART	41	/	43	29	/	31	13	/	2	5	/	12	0
PM	4:00 PM	0	4	0	0	5	0	1	0	1	0	0	0	11
	4:15 PM	0	8	0	0	11	1	1	0	1	0	0	0	22
	4:30 PM	0	9	0	0	7	4	1	1	3	0	0	0	25
	4:45 PM	1	7	1	0	7	2	1	0	2	1	1	0	23
	5:00 PM	1	5	0	0	4	3	0	0	3	0	0	0	16
	5:15 PM	0	5	0	0	5	0	2	0	2	0	0	0	14
	5:30 PM	0	3	0	2	11	0	3	0	1	0	0	0	20
	5:45 PM	0	4	0	2	11	1	4	0	0	0	0	0	22
	VOLUMES	2	45	1	4	61	11	13	1	13	1	1	0	153
	APPROACH %	4%	94%	2%	5%	80%	14%	48%	4%	48%	50%	50%	0%	
	APP/DEPART	48	/	58	76	/	75	27	/	6	2	/	14	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	28	1	0	30	7	4	1	7	1	1	0	81
	APPROACH %	3%	93%	3%	0%	81%	19%	33%	8%	58%	50%	50%	0%	
	PEAK HR FACTOR		0.833			0.771			0.600			0.250		0.810
	APP/DEPART	30	/	32	37	/	38	12	/	2	2	/	9	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	1	1	0
0	0	1	1
0	0	0	0
0	0	0	0
0	0	0	1
0	0	1	0
0	1	3	2
0	1	2	1
0	0	0	0
0	0	0	0
0	0	1	0
0	1	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	2	0
0	1	2	0

Riverside

NORTH SIDE

Slover WEST SIDE EAST SIDE **Slover**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	5
TUESDAY	EAST & WEST:	Slover	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

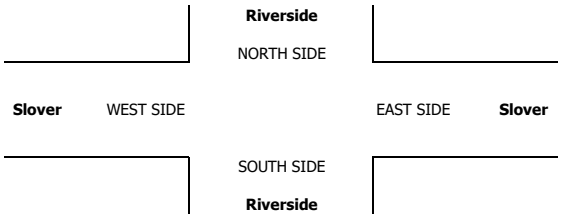
	NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (Slover)			WESTBOUND (Slover)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	0	37	2	0	29	4	2	0	1	0	0	4	79
7:15 AM	1	33	1	0	37	5	2	0	0	2	0	0	81
7:30 AM	3	24	1	0	14	2	5	0	2	1	1	2	55
7:45 AM	1	28	0	1	28	2	7	1	3	0	0	1	72
8:00 AM	0	29	1	0	26	1	5	1	5	2	0	2	72
8:15 AM	2	35	1	1	18	2	3	0	1	0	0	2	65
8:30 AM	2	33	1	3	37	2	5	0	2	1	0	2	88
8:45 AM	2	35	1	0	42	5	8	0	1	1	0	2	97
AM VOLUMES	11	254	8	5	231	23	37	2	15	7	1	15	609
AM APPROACH %	4%	93%	3%	2%	89%	9%	69%	4%	28%	30%	4%	65%	
AM APP/DEPART	273	/	306	259	/	253	54	/	15	23	/	35	0
BEGIN PEAK HR	7:00 AM												
AM VOLUMES	5	122	4	1	108	13	16	1	6	3	1	7	287
AM APPROACH %	4%	93%	3%	1%	89%	11%	70%	4%	26%	27%	9%	64%	
AM PEAK HR FACTOR		0.840			0.726			0.523			0.688		0.886
AM APP/DEPART	131	/	145	122	/	117	23	/	6	11	/	19	0
4:00 PM	1	21	0	3	23	6	0	1	3	0	5	1	64
4:15 PM	1	23	1	3	39	5	4	1	5	3	1	1	87
4:30 PM	1	22	0	1	26	3	4	0	3	2	1	0	63
4:45 PM	3	20	0	2	11	4	3	1	3	2	0	0	49
5:00 PM	2	20	1	0	17	3	5	0	7	0	1	0	56
5:15 PM	1	21	0	1	25	3	1	0	10	0	0	1	63
5:30 PM	0	22	2	1	25	3	5	0	2	1	1	2	64
5:45 PM	1	21	0	0	19	2	3	0	1	1	1	1	50
PM VOLUMES	10	170	4	11	185	29	25	3	34	9	10	6	496
PM APPROACH %	5%	92%	2%	5%	82%	13%	40%	5%	55%	36%	40%	24%	
PM APP/DEPART	184	/	201	225	/	228	62	/	18	25	/	49	0
BEGIN PEAK HR	4:00 PM												
PM VOLUMES	6	86	1	9	99	18	11	3	14	7	7	2	263
PM APPROACH %	6%	92%	1%	7%	79%	14%	39%	11%	50%	44%	44%	13%	
PM PEAK HR FACTOR		0.930			0.670			0.700			0.667		0.756
PM APP/DEPART	93	/	99	126	/	120	28	/	13	16	/	31	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
1	0	1	0
0	0	0	0
0	0	0	0
0	0	1	1
0	0	2	2
0	0	0	0
1	0	0	0
0	0	0	0
2	0	4	3
1	0	2	1
0	0	0	0
0	0	0	1
0	0	2	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	0	2
0	0	0	0
0	0	4	3
0	0	3	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	5
TUESDAY	EAST & WEST:	Slover	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

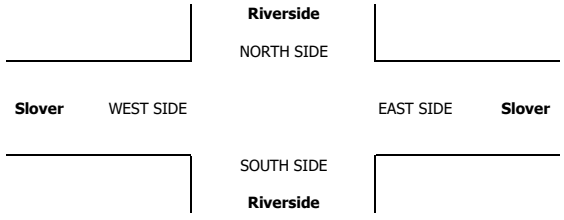
		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (Slover)			WESTBOUND (Slover)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	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	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.250			0.000			0.000		0.500
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	5
TUESDAY	EAST & WEST:	Slover	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND Slover			WESTBOUND Slover			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	2	0	0	1	0	1	0	0	1	0	0	5
	7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:00 AM	1	1	0	0	0	0	0	0	0	0	0	0	2
	8:15 AM	0	0	0	1	5	0	0	0	0	0	0	0	6
	8:30 AM	0	0	0	3	7	0	0	0	1	2	0	0	13
	8:45 AM	0	0	0	2	2	0	0	1	0	1	0	0	6
	VOLUMES	1	5	0	6	16	1	1	1	1	4	0	0	36
	APPROACH %	17%	83%	0%	26%	70%	4%	33%	33%	33%	100%	0%	0%	
	APP/DEPART	6	/	6	23	/	21	3	/	7	4	/	2	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	4	0	0	2	1	1	0	0	1	0	0	9
	APPROACH %	0%	100%	0%	0%	67%	33%	100%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.500			0.750			0.250			0.250		0.450
	APP/DEPART	4	/	5	3	/	3	1	/	0	1	/	1	0
PM	4:00 PM	0	0	0	0	3	1	0	0	0	0	0	0	4
	4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	7	1	0	0	0	0	0	0	8
	APPROACH %	0%	0%	0%	0%	88%	13%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	8	/	7	0	/	0	0	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	6	1	0	0	0	0	0	0	7
	APPROACH %	0%	0%	0%	0%	86%	14%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.438			0.000			0.000		0.438
	APP/DEPART	0	/	0	7	/	6	0	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Riverside

NORTH SIDE

Slover WEST SIDE EAST SIDE **Slover**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Feb 15, 22

LOCATION: Rialto
NORTH & SOUTH: Riverside
EAST & WEST: Santa Ana

PROJECT #: SC3292
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND Santa Ana			WESTBOUND Santa Ana			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	13	148	7	15	176	20	5	1	6	4	1	8	404
	7:15 AM	4	101	9	6	198	13	14	0	7	6	1	9	368
	7:30 AM	9	152	8	4	232	17	25	0	4	6	1	6	464
	7:45 AM	9	142	3	7	208	19	15	0	6	6	1	4	420
	8:00 AM	7	107	10	9	210	13	13	1	11	5	2	5	393
	8:15 AM	9	129	11	6	162	18	8	1	5	5	2	6	362
	8:30 AM	8	139	6	6	212	13	16	1	2	5	0	11	419
	8:45 AM	7	130	10	6	176	19	8	2	6	3	0	8	375
	VOLUMES	66	1,048	64	59	1,574	132	104	6	47	40	8	57	3,205
	APPROACH %	6%	89%	5%	3%	89%	7%	66%	4%	30%	38%	8%	54%	
	APP/DEPART	1,178	/	1,209	1,765	/	1,661	157	/	128	105	/	207	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	35	543	27	32	814	69	59	1	23	22	4	27	1,656
	APPROACH %	6%	90%	4%	3%	89%	8%	71%	1%	28%	42%	8%	51%	
	PEAK HR FACTOR		0.895			0.904			0.716			0.828		0.892
	APP/DEPART	605	/	628	915	/	859	83	/	60	53	/	109	0
PM	4:00 PM	6	171	5	9	211	16	22	1	8	10	4	14	477
	4:15 PM	13	180	2	13	246	12	16	5	14	3	3	13	520
	4:30 PM	11	242	10	7	192	11	25	1	10	12	2	14	537
	4:45 PM	14	256	4	4	208	15	29	4	9	13	5	19	580
	5:00 PM	13	224	3	4	245	7	12	1	15	6	4	14	548
	5:15 PM	13	193	2	3	198	8	27	1	9	8	3	14	479
	5:30 PM	11	192	5	3	227	9	16	1	11	3	1	5	484
	5:45 PM	16	171	4	3	212	10	19	1	7	6	0	4	453
	VOLUMES	97	1,629	35	46	1,739	88	166	15	83	61	22	97	4,078
	APPROACH %	6%	93%	2%	2%	93%	5%	63%	6%	31%	34%	12%	54%	
	APP/DEPART	1,761	/	1,892	1,873	/	1,884	264	/	96	180	/	206	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	51	902	19	28	891	45	82	11	48	34	14	60	2,185
	APPROACH %	5%	93%	2%	3%	92%	5%	58%	8%	34%	31%	13%	56%	
	PEAK HR FACTOR		0.887			0.889			0.839			0.730		0.942
	APP/DEPART	972	/	1,044	964	/	973	141	/	58	108	/	110	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	1	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1

RTOR

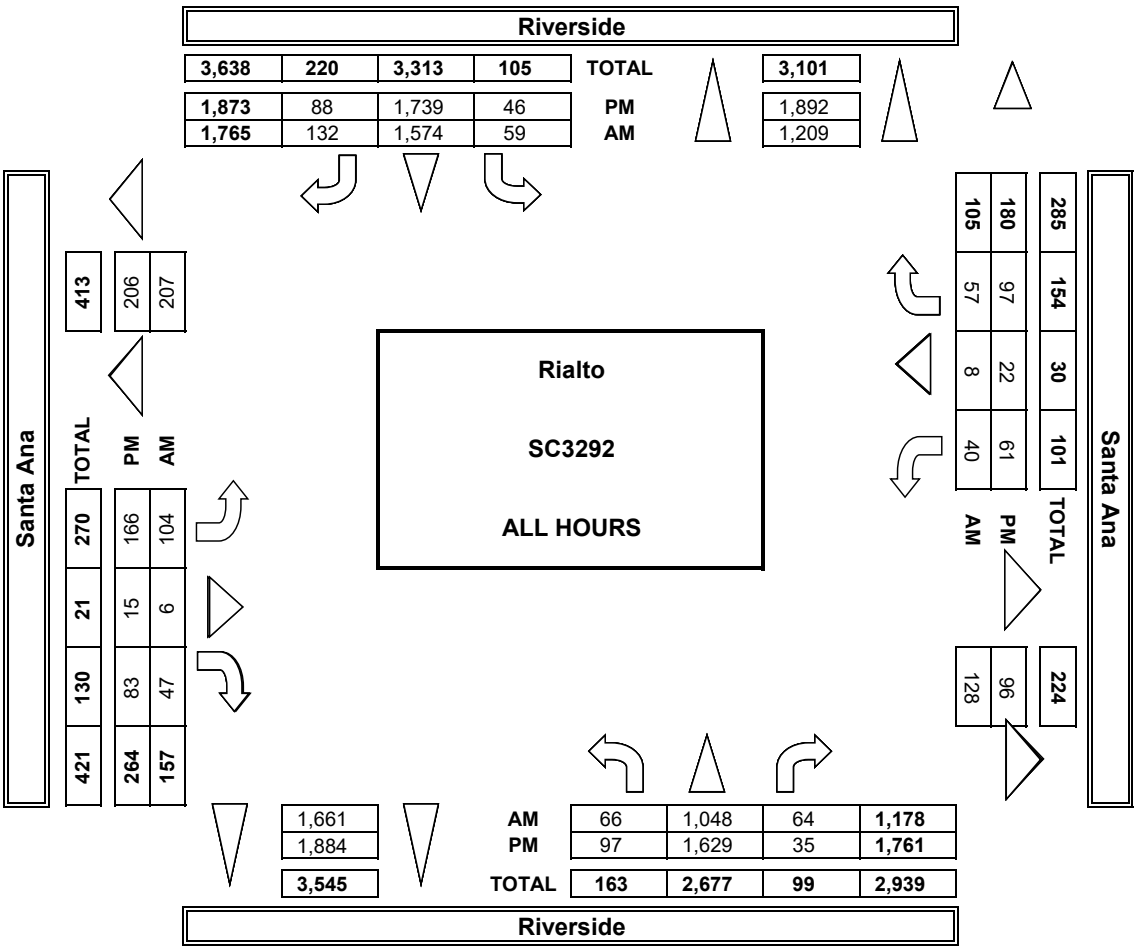
NRR	SRR	ERR	WRR
0	0	3	1
1	0	4	3
1	2	2	1
0	1	1	1
0	1	5	0
1	2	1	1
0	0	1	2
0	1	2	3
3	7	19	12
2	3	10	6
0	2	3	5
0	0	6	2
0	0	4	5
0	3	6	10
0	1	10	8
1	1	2	4
0	0	6	0
0	0	0	0
1	7	37	34
0	4	26	25

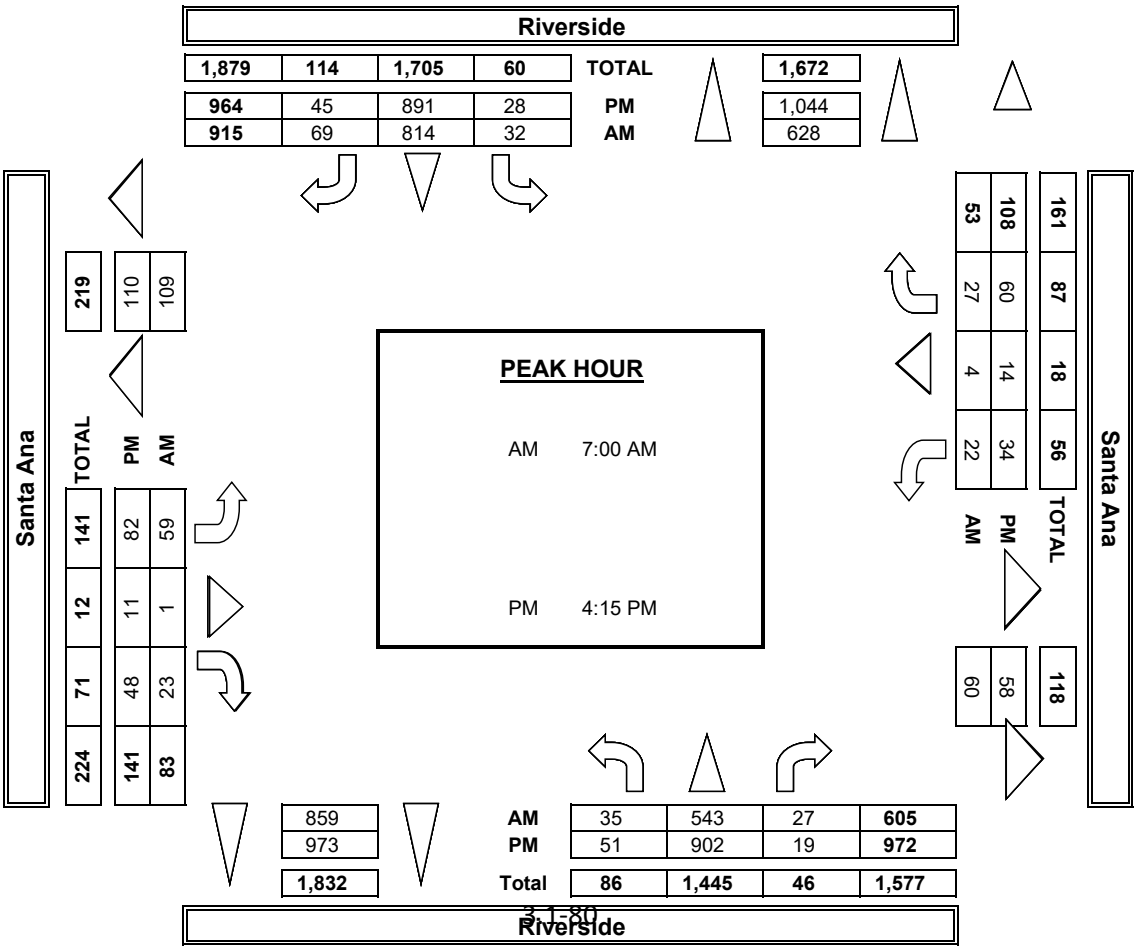


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:30 AM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	8:45 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	TOTAL	4	1	0	0	5	2	1	0	0	3	2	0	0	0	2
PM	4:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	1	1	0	2	0	0	1	0	1	0	1	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	3	2	0	5	0	1	1	0	2	0	2	1	0	3

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	6
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

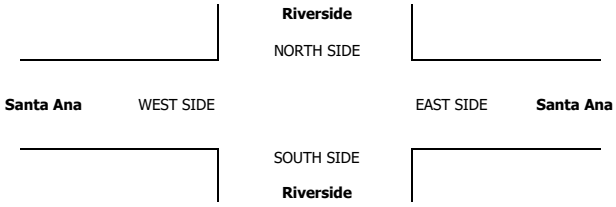
		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (Santa Ana)			WESTBOUND (Santa Ana)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	9	91	1	9	138	19	2	1	3	0	0	1	274
	7:15 AM	3	57	4	2	150	9	7	0	6	1	0	2	241
	7:30 AM	7	118	1	1	177	14	18	0	4	1	0	1	342
	7:45 AM	7	101	2	2	167	14	13	0	4	1	0	0	311
	8:00 AM	6	66	1	1	157	10	7	0	7	0	1	2	258
	8:15 AM	6	77	4	4	118	13	4	0	4	0	0	0	230
	8:30 AM	4	83	6	4	134	10	9	1	1	0	0	2	254
	8:45 AM	4	82	3	4	121	10	4	0	5	1	0	3	237
	VOLUMES	46	675	22	27	1,162	99	64	2	34	4	1	11	2,147
	APPROACH %	6%	91%	3%	2%	90%	8%	64%	2%	34%	25%	6%	69%	
	APP/DEPART	743	/	750	1,288	/	1,200	100	/	50	16	/	147	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	26	367	8	14	632	56	39	1	17	3	0	4	1,168
	APPROACH %	6%	92%	2%	2%	90%	8%	67%	2%	29%	43%	0%	57%	
	PEAK HR FACTOR		0.796			0.914			0.659			0.583		0.854
	APP/DEPART	401	/	410	702	/	652	58	/	23	7	/	83	0
PM	4:00 PM	6	146	2	5	171	14	20	0	5	7	3	12	391
	4:15 PM	8	141	0	4	187	6	13	2	14	1	2	9	387
	4:30 PM	8	197	4	4	148	7	22	0	8	7	1	11	417
	4:45 PM	13	207	1	4	175	11	26	1	5	8	4	14	469
	5:00 PM	12	185	1	2	197	4	10	1	12	4	3	10	441
	5:15 PM	11	166	1	1	153	4	23	0	6	6	2	9	382
	5:30 PM	10	165	1	0	176	7	13	0	10	0	0	0	382
	5:45 PM	11	145	0	1	169	8	16	0	5	0	0	2	357
	VOLUMES	79	1,352	10	21	1,376	61	143	4	65	33	15	67	3,226
	APPROACH %	5%	94%	1%	1%	94%	4%	67%	2%	31%	29%	13%	58%	
	APP/DEPART	1,441	/	1,562	1,458	/	1,475	212	/	35	115	/	154	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	41	730	6	14	707	28	71	4	39	20	10	44	1,714
	APPROACH %	5%	94%	1%	2%	94%	4%	62%	4%	34%	27%	14%	59%	
	PEAK HR FACTOR		0.879			0.922			0.891			0.712		0.914
	APP/DEPART	777	/	845	749	/	766	114	/	24	74	/	79	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	1	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	1	0
1	0	4	1
0	2	2	1
0	1	1	0
0	1	4	0
1	2	1	0
0	0	1	1
0	1	1	3
2	7	15	6
1	3	8	2
0	2	1	5
0	0	6	1
0	0	4	5
0	2	3	9
0	1	8	7
1	1	2	4
0	0	6	0
0	0	0	0
1	6	30	31
0	3	21	22



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	6
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (Santa Ana)			WESTBOUND (Santa Ana)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	3	19	1	3	11	0	3	0	1	0	0	0	41
	7:15 AM	0	15	0	1	13	2	2	0	0	0	1	0	34
	7:30 AM	1	10	1	0	22	1	1	0	0	3	1	0	40
	7:45 AM	0	10	0	0	16	2	1	0	0	0	0	0	29
	8:00 AM	1	9	3	2	15	2	2	0	3	1	1	0	39
	8:15 AM	2	11	2	2	13	2	2	0	1	1	0	1	37
	8:30 AM	2	14	0	0	20	1	3	0	0	2	0	1	43
	8:45 AM	2	16	1	0	16	3	2	1	1	1	0	0	43
	VOLUMES	11	104	8	8	126	13	16	1	6	8	3	2	306
	APPROACH %	9%	85%	7%	5%	86%	9%	70%	4%	26%	62%	23%	15%	
	APP/DEPART	123	/	122	147	/	140	23	/	17	13	/	27	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	4	54	2	4	62	5	7	0	1	3	2	0	144
	APPROACH %	7%	90%	3%	6%	87%	7%	88%	0%	13%	60%	40%	0%	
	PEAK HR FACTOR		0.652			0.772			0.500			0.313		0.878
	APP/DEPART	60	/	61	71	/	66	8	/	6	5	/	11	0
PM	4:00 PM	0	9	0	0	7	2	0	0	2	1	0	0	21
	4:15 PM	0	7	0	1	11	3	2	0	0	1	0	0	25
	4:30 PM	2	8	0	1	8	2	1	0	0	3	0	1	26
	4:45 PM	0	17	0	0	6	4	1	0	4	3	0	1	36
	5:00 PM	0	13	0	0	15	1	1	0	2	1	0	1	34
	5:15 PM	0	7	0	0	9	2	1	0	0	1	0	0	20
	5:30 PM	0	5	0	0	14	1	1	0	0	1	1	0	23
	5:45 PM	0	8	0	0	12	2	0	1	0	2	0	0	25
	VOLUMES	2	74	0	2	82	17	7	1	8	13	1	3	210
	APPROACH %	3%	97%	0%	2%	81%	17%	44%	6%	50%	76%	6%	18%	
	APP/DEPART	76	/	84	101	/	103	16	/	3	17	/	20	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	2	45	0	2	40	10	5	0	6	8	0	3	121
	APPROACH %	4%	96%	0%	4%	77%	19%	45%	0%	55%	73%	0%	27%	
	PEAK HR FACTOR		0.691			0.813			0.550			0.688		0.840
	APP/DEPART	47	/	53	52	/	54	11	/	2	11	/	12	0

U-TURNS					
	NB	SB	EB	WB	TTL
AM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
PM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

RTOR			
NRR 0	SRR 0	ERR 0	WRR 0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	2	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	0	0
0	1	3	1
0	0	2	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	6	2
0	1	5	2

Riverside

NORTH SIDE

Santa Ana WEST SIDE EAST SIDE Santa Ana

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	6
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND Santa Ana			WESTBOUND Santa Ana			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	10	4	0	3	0	0	0	1	1	0	2	21
	7:15 AM	0	6	3	0	7	1	1	0	0	1	0	0	19
	7:30 AM	1	10	1	0	10	1	1	0	0	0	0	0	24
	7:45 AM	0	9	0	1	9	2	0	0	0	1	0	1	23
	8:00 AM	0	4	2	2	8	1	1	0	1	0	0	0	19
	8:15 AM	0	12	1	0	8	2	0	0	0	1	1	2	27
	8:30 AM	1	9	0	0	11	1	0	0	0	0	0	1	23
	8:45 AM	0	5	0	0	12	1	0	0	0	0	0	1	19
	VOLUMES	2	65	11	3	68	9	3	0	2	4	1	7	175
	APPROACH %	3%	83%	14%	4%	85%	11%	60%	0%	40%	33%	8%	58%	
	APP/DEPART	78	/	75	80	/	74	5	/	14	12	/	12	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	35	8	1	29	4	2	0	1	3	0	3	87
	APPROACH %	2%	80%	18%	3%	85%	12%	67%	0%	33%	50%	0%	50%	
	PEAK HR FACTOR		0.786			0.708			0.750			0.500		0.906
	APP/DEPART	44	/	40	34	/	33	3	/	9	6	/	5	0
PM	4:00 PM	0	1	0	0	7	0	1	1	1	0	0	0	11
	4:15 PM	3	10	0	0	13	0	0	2	0	0	0	0	28
	4:30 PM	0	9	1	0	8	2	0	0	1	2	1	0	24
	4:45 PM	1	8	0	0	8	0	2	1	0	1	1	0	22
	5:00 PM	1	7	0	0	9	1	0	0	0	0	1	0	19
	5:15 PM	1	4	0	0	9	0	2	1	3	0	0	1	21
	5:30 PM	0	3	1	0	11	0	0	1	1	1	0	2	20
	5:45 PM	3	6	2	1	13	0	0	0	0	1	0	0	26
	VOLUMES	9	48	4	1	78	3	5	6	6	5	3	3	171
	APPROACH %	15%	79%	7%	1%	95%	4%	29%	35%	35%	45%	27%	27%	
	APP/DEPART	61	/	56	82	/	89	17	/	11	11	/	15	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	5	34	1	0	38	3	2	3	1	3	3	0	93
	APPROACH %	13%	85%	3%	0%	93%	7%	33%	50%	17%	50%	50%	0%	
	PEAK HR FACTOR		0.769			0.788			0.500			0.500		0.830
	APP/DEPART	40	/	36	41	/	42	6	/	4	6	/	11	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	1
0	0	0	1
0	0	0	0
0	0	1	3
0	0	0	1
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0

Riverside

NORTH SIDE

Santa Ana WEST SIDE EAST SIDE **Santa Ana**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	6
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (Santa Ana)			WESTBOUND (Santa Ana)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	1	25	1	3	22	1	0	0	1	3	1	5	63
	7:15 AM	1	23	2	3	27	1	4	0	1	4	0	7	73
	7:30 AM	0	14	5	3	23	1	4	0	0	2	0	5	57
	7:45 AM	2	21	1	4	16	1	1	0	2	4	1	3	56
	8:00 AM	0	26	4	4	30	0	3	1	0	4	0	3	75
	8:15 AM	1	29	4	0	18	1	2	1	0	3	1	3	63
	8:30 AM	1	32	0	2	37	1	4	0	1	3	0	7	88
	8:45 AM	1	27	6	2	26	5	2	1	0	1	0	4	75
	VOLUMES	7	197	23	21	199	11	20	3	5	24	3	37	550
	APPROACH %	3%	87%	10%	9%	86%	5%	71%	11%	18%	38%	5%	58%	
	APP/DEPART	227	/	254	231	/	228	28	/	47	64	/	21	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	4	83	9	13	88	4	9	0	4	13	2	20	249
	APPROACH %	4%	86%	9%	12%	84%	4%	69%	0%	31%	37%	6%	57%	
	PEAK HR FACTOR		0.889			0.847			0.650			0.795		0.853
	APP/DEPART	96	/	112	105	/	105	13	/	22	35	/	10	0
PM	4:00 PM	0	15	3	4	22	0	1	0	0	2	1	2	50
	4:15 PM	2	22	2	8	32	3	1	1	0	1	1	4	77
	4:30 PM	1	28	5	2	28	0	2	1	1	0	0	2	70
	4:45 PM	0	24	3	0	18	0	0	2	0	1	0	4	52
	5:00 PM	0	19	2	2	24	1	1	0	1	1	0	3	54
	5:15 PM	1	16	1	2	26	2	1	0	0	1	1	4	55
	5:30 PM	1	19	3	3	26	1	2	0	0	1	0	3	59
	5:45 PM	2	12	2	1	18	0	3	0	2	3	0	2	45
	VOLUMES	7	155	21	22	194	7	11	4	4	10	3	24	462
	APPROACH %	4%	85%	11%	10%	87%	3%	58%	21%	21%	27%	8%	65%	
	APP/DEPART	183	/	190	223	/	208	19	/	47	37	/	17	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	3	93	12	12	102	4	4	4	2	3	1	13	253
	APPROACH %	3%	86%	11%	10%	86%	3%	40%	40%	20%	18%	6%	76%	
	PEAK HR FACTOR		0.794			0.686			0.625			0.708		0.821
	APP/DEPART	108	/	110	118	/	107	10	/	28	17	/	8	0

	U-TURNS					RTOR			
	NB	SB	EB	WB	TTL	NRR 0	SRR 0	ERR 0	WRR 0
7:00 AM	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	1	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	1	0	1	3
						1	0	1	3
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	1
						0	0	0	1

Riverside

NORTH SIDE

Santa Ana WEST SIDE EAST SIDE **Santa Ana**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	6
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Riverside)			SOUTHBOUND (Riverside)			EASTBOUND (Santa Ana)			WESTBOUND (Santa Ana)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	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	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	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	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Riverside

NORTH SIDE

Santa Ana WEST SIDE EAST SIDE **Santa Ana**

SOUTH SIDE

Riverside

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Rialto	PROJECT #:	SC3292
2/15/22	NORTH & SOUTH:	Riverside	LOCATION #:	6
TUESDAY	EAST & WEST:	Santa Ana	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

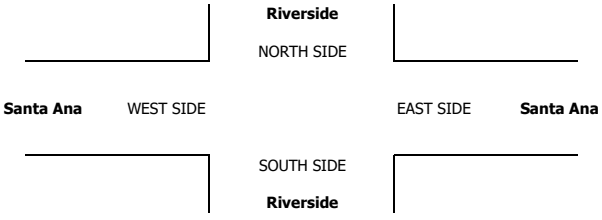
		NORTHBOUND Riverside			SOUTHBOUND Riverside			EASTBOUND Santa Ana			WESTBOUND Santa Ana			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	3	0	0	2	0	0	0	0	0	0	0	5
	7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
	8:15 AM	0	0	0	0	5	0	0	0	0	0	0	0	5
	8:30 AM	0	1	0	0	10	0	0	0	0	0	0	0	11
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	0	7	0	0	19	0	1	0	0	0	0	0	27
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	7	/	8	19	/	19	1	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	4	0	0	3	0	1	0	0	0	0	0	8
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.333			0.375			0.250			0.000		0.400
	APP/DEPART	4	/	5	3	/	3	1	/	0	0	/	0	0
PM	4:00 PM	0	0	0	0	4	0	0	0	0	0	0	0	4
	4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	8	0	0	0	0	0	0	0	8
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	8	/	8	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	3	0	0	0	0	0	0	0	3
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.375			0.000			0.000		0.375
	APP/DEPART	0	/	0	3	/	3	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 15, 2022
JOB #: SC3292

CITY: Rialto
LOCATION: CLASS1 Lilac south of Santa Ana

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
0:15	0	1	0	0	0	1	0	0	0	0	0	0	0	2
0:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
0:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	3	0	0	0	0	0	0	1	0	0	0	0	4
1:15	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:30	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2:15	0	0	0	0	0	1	0	0	0	0	0	0	0	1
2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00	0	1	0	0	0	0	0	0	1	0	0	0	0	2
3:15	0	1	1	0	0	0	0	0	0	0	0	0	0	2
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	1	0	0	0	1	0	0	0	0	0	0	0	2
4:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30	0	2	0	0	0	0	0	0	2	0	0	0	0	4
4:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00	0	2	0	0	0	1	0	0	2	0	0	0	0	5
5:15	0	3	0	0	1	2	0	0	1	0	0	0	0	7
5:30	0	2	0	0	1	2	0	0	0	0	0	0	0	5
5:45	0	3	2	0	0	3	0	0	2	0	0	0	0	10
6:00	0	0	1	0	1	1	0	0	0	0	0	0	0	3
6:15	0	4	1	0	0	1	0	0	1	0	0	0	0	7
6:30	0	3	1	0	0	0	0	0	1	0	0	0	0	5
6:45	0	4	3	0	0	1	0	0	0	0	0	0	0	8
7:00	0	0	4	0	1	0	0	0	2	0	0	0	0	7
7:15	0	0	3	0	2	0	0	0	3	0	0	0	0	8
7:30	0	6	2	0	0	1	0	0	1	0	0	0	0	10
7:45	0	2	2	0	2	0	0	0	1	0	0	0	0	7
8:00	0	6	2	0	1	1	0	0	0	0	0	0	0	10
8:15	0	2	3	0	0	0	0	0	1	0	0	0	0	6
8:30	0	6	1	1	0	0	0	0	0	0	0	0	0	8
8:45	0	4	2	0	2	0	0	0	4	0	0	0	0	12
9:00	0	4	2	0	0	1	0	0	0	0	0	0	0	7
9:15	0	2	2	0	1	0	0	0	3	0	0	0	0	8
9:30	0	2	2	0	1	0	0	1	3	0	0	0	0	9
9:45	0	1	1	0	3	0	0	0	2	0	0	0	0	7
10:00	0	10	3	0	2	0	0	0	3	0	0	0	0	18
10:15	0	6	0	0	2	0	0	0	1	0	0	0	0	9
10:30	0	4	2	0	1	0	0	1	3	0	0	0	0	11
10:45	0	1	2	0	0	0	0	1	6	0	0	0	0	10
11:00	0	4	1	0	2	1	0	0	0	0	0	0	0	8
11:15	0	2	5	0	2	0	0	1	2	0	0	0	0	12
11:30	0	3	4	0	1	1	0	0	1	0	0	0	0	10
11:45	0	4	1	0	0	1	0	1	0	0	0	0	0	7
TOTAL	0	103	54	1	26	20	0	5	51	0	0	0	0	260

AM PEAK HOUR	10:00 AM
AM PEAK VOLUME	48

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	3	1	0	0	1	0	0	5	0	0	0	0	10
12:15	0	4	3	0	3	0	0	1	4	0	0	0	0	15
12:30	0	3	4	0	3	0	0	0	6	0	0	0	0	16
12:45	0	4	2	0	1	0	0	0	4	0	0	0	0	11
13:00	0	5	4	0	4	0	0	0	1	0	0	0	0	14
13:15	0	5	3	0	3	5	0	0	0	0	0	0	0	16
13:30	0	9	2	0	1	2	0	0	0	0	0	0	0	14
13:45	0	8	3	0	3	0	0	0	5	0	0	0	0	19
14:00	0	5	5	0	1	2	0	1	4	0	0	0	0	18
14:15	0	10	5	0	2	0	0	0	0	0	0	0	0	17
14:30	0	23	12	0	1	1	0	0	4	0	0	0	0	41
14:45	0	7	1	0	1	0	0	0	4	0	0	0	0	13
15:00	0	11	11	0	3	1	0	0	0	0	0	0	0	26
15:15	0	4	3	0	2	1	0	1	1	0	0	0	0	12
15:30	0	7	2	0	3	1	0	0	1	0	0	0	0	14
15:45	1	10	4	0	2	0	0	0	1	0	0	0	0	18
16:00	0	13	4	1	0	0	0	2	1	0	0	0	0	21
16:15	0	5	3	0	0	1	0	0	1	0	0	0	0	10
16:30	0	3	2	0	0	0	0	0	3	0	0	0	0	8
16:45	0	8	0	0	1	2	0	0	2	0	0	0	0	13
17:00	0	10	1	0	1	0	0	0	0	0	0	0	0	12
17:15	0	6	2	0	0	0	0	0	3	0	0	0	0	11
17:30	0	1	0	0	0	2	0	1	2	0	0	0	0	6
17:45	0	3	5	0	0	1	0	0	2	0	0	0	0	11
18:00	0	7	1	0	0	0	0	1	4	0	0	0	0	13
18:15	0	5	3	0	0	0	0	0	1	0	0	0	0	9
18:30	0	4	1	0	0	0	0	0	1	0	0	0	0	6
18:45	0	2	3	0	0	1	0	0	0	0	0	0	0	6
19:00	0	1	0	0	0	0	0	0	2	0	0	0	0	3
19:15	0	3	2	0	0	1	0	0	1	0	0	0	0	7
19:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
19:45	0	3	0	0	0	0	0	0	1	0	0	0	0	4
20:00	0	4	0	0	0	0	0	0	3	0	0	0	0	7
20:15	0	2	1	0	0	2	0	0	1	0	0	0	0	6
20:30	0	1	0	0	0	1	0	0	1	0	0	0	0	3
20:45	0	3	0	0	0	1	0	0	1	0	0	0	0	5
21:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
21:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
21:30	0	3	0	0	0	3	0	0	1	0	0	0	0	7
21:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
22:00	0	0	0	0	0	2	0	0	1	0	0	0	0	3
22:15	0	1	0	0	0	1	0	0	0	0	0	0	0	2
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	1	0	0	0	0	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23:30	0	0	0	0	0	1	0	0	1	0	0	0	0	2
23:45	0	0	1	0	0	0	0	0	2	0	0	0	0	3
TOTAL	1	213	96	1	35	35	0	7	76	0	0	0	0	464

PM PEAK HOUR	2:15 PM
PM PEAK VOLUME	97

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	1	316	150	2	61	55	0	12	127	0	0	0	0	724
% OF TOTAL	0.1%	43.6%	20.7%	0.3%	8.4%	7.6%	0.0%	1.7%	17.5%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	2	658	312	2	120	119	0	14	221	0	0	0	0	1,448
% OF TOTAL	0.3%	90.9%	43.1%	0.3%	16.6%	16.4%	0.0%	1.9%	30.5%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 15, 2022
JOB #: SC3292

CITY: Rialto
LOCATION: CLASS1 Lilac south of Santa Ana

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
0:15	0	1	0	0	0	0	0	0	1	0	0	0	0	2
0:30	0	0	0	0	0	2	0	0	0	0	0	0	0	2
0:45	0	0	0	0	0	1	0	0	1	0	0	0	0	2
1:00	0	1	0	0	0	0	0	0	1	0	0	0	0	2
1:15	0	0	0	0	0	1	0	0	0	0	0	0	0	1
1:30	0	0	0	0	0	1	0	0	1	0	0	0	0	2
1:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:00	0	1	1	0	0	1	0	0	0	0	0	0	0	3
3:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:30	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:45	0	3	1	0	0	1	0	0	1	0	0	0	0	6
4:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
4:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
4:30	0	4	2	0	0	0	0	0	0	0	0	0	0	6
4:45	0	1	2	0	0	1	0	0	1	0	0	0	0	5
5:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
5:15	0	6	1	0	0	2	0	0	1	0	0	0	0	10
5:30	0	7	2	0	0	2	0	0	0	0	0	0	0	11
5:45	0	24	12	0	1	1	0	0	1	0	0	0	0	39
6:00	0	4	3	0	0	1	0	0	2	0	0	0	0	10
6:15	0	5	2	0	1	0	0	0	0	0	0	0	0	8
6:30	0	13	3	0	2	1	0	0	1	0	0	0	0	20
6:45	0	14	4	0	3	0	0	0	1	0	0	0	0	22
7:00	0	9	10	0	1	0	0	0	1	0	0	0	0	21
7:15	0	4	3	0	0	0	0	0	2	0	0	0	0	9
7:30	0	6	6	0	1	1	0	0	2	0	0	0	0	16
7:45	0	8	1	0	1	1	0	0	0	0	0	0	0	11
8:00	0	11	5	0	1	2	0	0	2	0	0	0	0	21
8:15	0	5	4	0	3	3	0	0	1	0	0	0	0	16
8:30	0	5	2	0	1	0	0	0	1	0	0	0	0	9
8:45	0	4	5	0	2	1	0	0	2	0	0	0	0	14
9:00	0	3	5	0	0	0	0	0	2	0	0	0	0	10
9:15	0	7	3	0	1	0	0	0	2	0	0	0	0	13
9:30	0	5	0	0	0	1	0	0	1	0	0	0	0	7
9:45	0	1	0	0	2	2	0	0	2	0	0	0	0	7
10:00	0	3	1	0	2	1	0	0	5	0	0	0	0	12
10:15	0	6	4	0	0	0	0	0	0	0	0	0	0	10
10:30	0	1	5	0	1	3	0	0	1	0	0	0	0	11
10:45	0	2	4	0	3	1	0	0	3	0	0	0	0	13
11:00	0	2	4	0	0	1	0	0	0	0	0	0	0	7
11:15	0	5	3	0	0	0	0	0	2	0	0	0	0	10
11:30	0	4	4	0	0	0	0	0	0	0	0	0	0	8
11:45	0	4	1	0	3	0	0	0	3	0	0	0	0	11
TOTAL	0	191	107	0	31	33	0	0	44	0	0	0	0	406

AM PEAK HOUR	5:45 AM
AM PEAK VOLUME	77

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	5	0	0	1	2	0	0	3	0	0	0	0	11
12:15	0	10	4	0	3	1	0	0	3	0	0	0	0	21
12:30	0	4	1	0	2	1	0	0	1	0	0	0	0	9
12:45	0	5	3	0	1	2	0	0	3	0	0	0	0	14
13:00	0	5	3	0	3	0	0	0	2	0	0	0	0	13
13:15	0	6	3	0	3	2	0	0	3	0	0	0	0	17
13:30	0	8	2	0	2	1	0	0	2	0	0	0	0	15
13:45	0	10	4	0	1	1	0	0	0	0	0	0	0	16
14:00	0	4	5	0	0	1	0	0	5	0	0	0	0	15
14:15	0	5	2	0	0	0	0	0	2	0	0	0	0	9
14:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4
14:45	0	2	1	0	0	0	0	0	2	0	0	0	0	5
15:00	0	10	3	0	3	0	0	0	1	0	0	0	0	17
15:15	0	4	1	0	1	0	0	0	4	0	0	0	0	10
15:30	1	1	1	0	0	3	0	0	0	0	0	0	0	6
15:45	0	8	3	0	2	0	0	0	2	0	0	0	0	15
16:00	0	5	3	0	1	0	0	0	0	0	0	0	0	9
16:15	0	4	2	0	1	1	0	0	4	0	0	0	0	12
16:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
16:45	0	5	0	0	1	0	0	0	2	0	0	0	0	8
17:00	0	8	1	0	2	0	0	0	1	0	0	0	0	12
17:15	0	2	0	0	0	1	0	1	2	0	0	0	0	6
17:30	0	2	1	0	0	1	0	0	0	0	0	0	0	4
17:45	0	0	0	0	0	0	0	0	2	0	0	0	0	2
18:00	0	6	1	0	0	2	0	0	0	0	0	0	0	9
18:15	0	1	0	0	0	1	0	0	0	0	0	0	0	2
18:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
18:45	0	1	4	0	0	0	0	0	0	0	0	0	0	5
19:00	0	1	1	0	0	1	0	0	1	0	0	0	0	4
19:15	0	0	1	0	0	0	0	1	0	0	0	0	0	2
19:30	0	4	1	0	0	1	0	0	0	0	0	0	0	6
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
20:30	0	2	0	0	0	1	0	0	1	0	0	0	0	4
20:45	0	1	3	0	0	0	0	0	0	0	0	0	0	4
21:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2
21:15	0	1	0	0	0	0	0	0	1	0	0	0	0	2
21:30	0	2	0	0	0	0	0	0	1	0	0	0	0	3
21:45	0	1	0	0	0	0	0	0	1	0	0	0	0	2
22:00	0	0	0	0	0	2	0	0	0	0	0	0	0	2
22:15	0	0	0	0	0	2	0	0	0	0	0	0	0	2
22:30	0	0	0	0	0	0	0	0	1	0	0	0	0	1
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:30	0	2	0	0	0	2	0	0	0	0	0	0	0	4
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	151	55	0	28	31	0	2	50	0	0	0	0	318

PM PEAK HOUR	1:15 PM
PM PEAK VOLUME	63

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	1	342	162	0	59	64	0	2	94	0	0	0	0	724
% OF TOTAL	0.1%	47.2%	22.4%	0.0%	8.1%	8.8%	0.0%	0.3%	13.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 15, 2022
JOB #: SC3292

CITY: Rialto
LOCATION: CLASS2 Riverside north of Santa Ana

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	43	11	0	2	4	0	0	12	0	1	0	0	73
0:15	0	58	10	0	0	3	0	4	15	0	2	0	0	92
0:30	0	64	14	0	0	2	0	4	14	0	1	0	0	99
0:45	0	62	2	0	1	4	0	0	9	0	4	0	0	82
1:00	0	41	3	0	0	5	0	1	5	0	2	0	0	57
1:15	1	24	1	0	0	4	0	3	10	1	1	0	0	45
1:30	0	47	2	0	0	5	0	1	13	1	1	0	0	70
1:45	1	24	3	0	0	2	0	1	10	0	0	0	0	41
2:00	0	30	2	0	0	3	0	1	6	0	1	0	0	43
2:15	0	26	1	0	1	5	0	2	17	0	3	0	0	55
2:30	0	24	4	0	0	1	0	1	15	0	1	0	0	46
2:45	0	23	1	0	3	5	0	2	11	0	2	0	0	47
3:00	0	23	2	0	1	8	0	0	10	1	0	0	0	45
3:15	0	10	1	0	1	12	0	0	11	0	0	0	0	35
3:30	0	11	4	0	1	9	0	0	12	0	4	0	0	41
3:45	1	26	8	0	2	10	0	1	13	0	0	1	0	62
4:00	0	32	4	0	4	12	0	0	22	0	0	2	0	76
4:15	0	30	4	0	2	8	0	0	19	0	1	2	0	66
4:30	0	61	13	0	2	10	0	1	19	0	5	0	0	111
4:45	0	47	9	0	1	5	0	1	17	0	0	0	0	80
5:00	0	38	11	0	2	12	0	0	9	0	0	0	0	72
5:15	0	49	9	1	6	14	0	2	17	0	3	1	0	102
5:30	0	64	16	0	5	4	0	2	15	0	0	0	0	106
5:45	0	74	10	0	8	9	0	0	18	0	0	1	0	120
6:00	0	41	14	0	9	8	0	1	17	0	2	1	0	93
6:15	0	60	17	1	9	17	0	0	18	1	2	0	0	125
6:30	2	104	23	4	8	8	0	4	22	0	2	1	0	178
6:45	0	95	29	4	11	8	0	0	19	0	1	1	0	168
7:00	0	71	27	4	18	14	0	0	23	0	5	0	0	162
7:15	0	55	17	0	14	9	0	0	27	0	0	1	0	123
7:30	0	96	31	0	8	9	0	2	20	0	0	0	0	166
7:45	0	95	30	1	11	8	0	1	21	0	1	1	0	169
8:00	0	64	17	2	8	7	0	1	28	0	1	0	0	128
8:15	0	69	18	0	15	14	0	3	21	1	2	0	0	143
8:30	0	76	24	0	14	14	0	2	37	0	1	0	0	168
8:45	0	73	22	0	15	10	0	2	25	0	1	2	0	150
9:00	0	92	23	0	18	8	0	1	24	0	0	1	0	167
9:15	0	78	27	0	19	11	0	1	30	1	2	1	0	170
9:30	0	88	23	0	20	12	0	4	33	0	0	3	0	183
9:45	0	87	24	0	19	10	0	2	38	0	1	0	0	181
10:00	0	133	34	0	13	9	0	1	36	0	1	1	0	228
10:15	0	155	34	1	18	9	0	3	30	0	0	0	0	250
10:30	0	102	27	2	15	17	0	3	33	0	1	2	0	202
10:45	0	65	28	0	12	11	0	0	29	0	2	1	0	148
11:00	0	75	30	0	13	13	0	0	37	0	1	0	0	169
11:15	1	77	22	0	22	9	0	3	33	0	1	1	0	169
11:30	0	87	37	0	14	9	0	5	35	0	0	2	0	189
11:45	0	97	36	0	9	8	0	5	31	0	1	2	0	189
TOTAL	6	2,966	759	20	374	408	0	71	986	6	60	28	0	5,684

AM PEAK HOUR	9:45 AM
AM PEAK VOLUME	861

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	74	23	2	15	13	0	2	36	0	3	0	0	168
12:15	0	90	26	0	7	15	0	0	30	0	1	3	0	172
12:30	0	81	25	0	18	6	0	1	32	0	1	0	0	164
12:45	0	98	29	1	11	3	0	5	37	1	1	1	0	187
13:00	0	82	27	0	18	15	0	3	26	0	1	0	0	172
13:15	0	92	32	4	13	16	0	2	25	0	1	1	0	186
13:30	0	134	31	5	8	8	0	4	27	1	0	1	0	219
13:45	0	110	39	1	8	11	0	1	27	0	2	2	0	201
14:00	0	133	39	0	13	9	0	6	26	0	2	2	0	230
14:15	0	111	33	0	8	12	0	2	22	0	0	0	0	188
14:30	0	161	50	0	7	15	0	0	26	0	1	0	0	260
14:45	0	162	56	0	7	10	0	1	24	1	1	0	0	262
15:00	1	150	46	0	20	10	0	3	27	0	0	0	0	257
15:15	0	103	31	0	10	11	0	0	15	0	1	0	0	171
15:30	0	147	51	1	6	10	0	2	17	0	0	0	0	234
15:45	1	142	46	1	12	12	0	1	21	0	1	2	0	239
16:00	0	145	45	1	7	4	0	1	16	0	0	0	0	219
16:15	1	159	24	0	4	11	0	5	21	0	0	0	0	225
16:30	1	191	53	0	3	13	0	1	22	0	0	0	0	284
16:45	1	166	51	0	4	12	0	1	15	0	0	0	0	250
17:00	0	173	42	0	11	12	0	1	14	0	0	0	0	253
17:15	0	165	39	0	9	8	0	0	17	0	1	0	0	239
17:30	0	159	33	0	0	9	0	4	16	0	0	0	0	221
17:45	0	133	43	0	4	5	0	2	14	0	0	0	0	201
18:00	0	126	30	0	6	4	0	0	13	0	0	0	0	179
18:15	0	98	41	0	0	4	0	1	19	0	0	0	0	163
18:30	0	126	37	0	2	10	0	0	21	0	1	0	0	197
18:45	0	119	37	0	2	6	0	0	13	0	1	0	0	178
19:00	0	111	35	0	1	9	0	1	15	0	0	0	0	172
19:15	0	132	31	0	1	6	0	0	13	0	2	0	0	185
19:30	0	118	24	0	5	10	0	1	15	0	1	0	0	174
19:45	0	81	9	0	4	5	0	2	14	0	0	0	0	115
20:00	0	47	12	0	2	10	0	1	19	0	0	0	0	91
20:15	0	35	13	0	2	5	0	0	11	0	1	0	0	67
20:30	0	45	14	0	5	9	0	0	10	0	0	0	0	83
20:45	0	36	6	0	2	10	0	0	14	0	1	0	0	69
21:00	0	44	7	0	1	5	0	0	14	0	2	0	0	73
21:15	0	34	7	0	1	5	0	0	19	0	1	0	0	67
21:30	0	54	12	0	0	5	0	0	17	0	0	0	0	88
21:45	0	41	10	0	0	9	0	0	11	1	0	0	0	72
22:00	0	57	9	0	0	5	0	1	18	0	0	0	0	90
22:15	0	42	6	0	1	7	0	2	9	0	2	0	0	69
22:30	0	43	5	0	0	8	0	0	17	0	6	0	0	79
22:45	0	40	7	0	0	3	0	1	18	0	3	0	0	72
23:00	0	31	9	0	0	6	0	1	14	0	2	0	0	63
23:15	0	57	11	0	0	5	0	0	19	0	1	0	0	93
23:30	0	33	9	0	2	5	0	0	16	0	2	0	0	67
23:45	0	44	9	0	2	4	0	0	17	0	3	0	0	79
TOTAL	5	4,755	1,304	16	262	405	0	59	919	4	46	12	0	7,787

PM PEAK HOUR	4:30 PM
PM PEAK VOLUME	1,026

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	11	7,721	2,063	36	636	813	0	130	###	10	106	40	0	13,471
% OF TOTAL	0.1%	57.3%	15.3%	0.3%	4.7%	6.0%	0.0%	1.0%	14.1%	0.1%	0.8%	0.3%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	26	16,880	4,265	91	1,350	1,668	1	294	###	14	205	70	0	28,729
% OF TOTAL	0.2%	125.3%	31.7%	0.7%	10.0%	12.4%	0.0%	2.2%	28.7%	0.1%	1.5%	0.5%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 15, 2022
JOB #: SC3292

CITY: Rialto
LOCATION: CLASS2 Riverside north of Santa Ana

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	97	5	0	0	4	0	1	16	0	1	0	0	124
0:15	1	72	1	0	2	1	0	1	11	0	0	0	0	89
0:30	0	34	1	0	0	11	0	0	23	0	1	0	0	70
0:45	1	28	4	0	1	7	0	1	21	0	3	0	0	66
1:00	0	23	0	0	1	2	0	0	17	0	0	0	0	43
1:15	0	35	0	0	0	8	0	1	12	0	3	0	0	59
1:30	0	32	0	0	3	6	0	2	13	0	3	0	0	59
1:45	0	38	2	0	1	3	0	0	9	0	0	0	0	53
2:00	0	27	1	0	1	7	0	2	16	0	2	0	0	56
2:15	0	27	0	0	0	5	0	0	10	0	0	0	0	42
2:30	0	32	1	0	2	5	0	3	11	0	2	0	0	56
2:45	0	41	6	0	0	3	0	2	8	0	1	0	0	61
3:00	0	20	10	0	2	4	0	0	8	0	0	1	0	45
3:15	0	27	21	0	5	6	0	1	11	0	2	0	0	73
3:30	0	41	28	0	0	15	0	0	16	0	2	0	0	102
3:45	0	84	33	0	4	2	0	1	14	0	0	2	0	140
4:00	0	63	14	0	1	8	0	1	17	0	0	1	0	105
4:15	0	81	20	0	4	9	0	0	8	0	2	2	0	126
4:30	0	120	38	0	1	9	0	0	11	0	1	0	0	180
4:45	1	141	46	0	7	5	0	0	12	0	1	1	0	214
5:00	0	96	33	0	4	5	0	0	18	0	1	0	0	157
5:15	0	93	44	0	5	6	0	0	23	0	1	0	0	172
5:30	0	153	48	0	13	7	0	1	12	0	2	0	0	236
5:45	0	165	48	0	10	8	0	0	13	0	1	1	0	246
6:00	0	116	50	0	18	11	0	0	13	0	2	0	0	210
6:15	0	114	39	0	10	8	0	1	16	0	3	0	0	191
6:30	2	160	46	1	9	7	0	0	16	0	1	0	0	242
6:45	0	150	42	0	13	13	0	1	14	0	1	2	0	236
7:00	1	137	27	1	16	5	0	2	17	0	2	1	0	209
7:15	0	131	36	1	16	9	0	0	26	0	0	0	0	219
7:30	0	171	34	0	20	13	0	1	22	0	0	0	0	261
7:45	0	151	44	0	10	12	0	0	18	0	1	0	0	236
8:00	1	142	23	0	18	11	0	3	25	1	1	1	0	226
8:15	0	107	34	4	13	9	0	0	20	0	0	0	0	187
8:30	0	116	37	11	17	15	0	1	28	0	2	1	0	228
8:45	0	103	41	2	11	14	0	2	25	0	0	1	0	199
9:00	0	104	40	2	13	15	0	3	27	0	1	1	0	206
9:15	0	88	26	0	13	17	0	0	26	1	0	0	0	171
9:30	0	91	28	0	8	13	0	4	23	0	2	0	0	169
9:45	0	70	26	1	11	16	0	2	32	0	3	2	0	163
10:00	0	91	28	0	5	17	0	1	26	0	1	0	0	169
10:15	0	108	24	1	15	17	0	4	28	0	1	1	0	199
10:30	0	144	33	0	14	22	0	2	21	0	0	1	0	237
10:45	0	150	34	1	21	7	0	3	33	0	0	0	0	249
11:00	0	105	28	0	14	16	0	4	23	0	3	0	0	193
11:15	0	92	27	0	17	17	0	2	37	0	0	0	0	192
11:30	0	89	34	1	8	7	0	2	33	0	0	0	0	174
11:45	0	78	32	1	14	15	0	2	23	0	0	1	0	166
TOTAL	7	4,378	1,217	27	391	452	0	57	902	2	53	20	0	7,506

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	942

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	100	29	0	10	11	0	2	22	0	3	0	0	177
12:15	0	87	25	1	17	14	0	3	34	0	2	0	0	183
12:30	0	69	26	0	14	15	0	5	29	0	0	0	0	158
12:45	0	87	38	0	16	15	0	0	32	0	2	0	0	190
13:00	0	75	28	0	11	7	0	4	32	0	0	1	0	158
13:15	1	89	31	0	9	9	0	5	25	0	1	1	0	171
13:30	1	120	36	1	14	11	0	4	26	0	2	0	0	215
13:45	0	85	26	0	11	13	0	5	31	0	2	3	0	176
14:00	0	127	31	1	16	14	0	3	32	0	1	1	0	226
14:15	1	143	31	0	13	14	0	1	19	0	0	0	0	222
14:30	0	141	33	0	12	7	0	4	36	0	1	2	0	236
14:45	1	138	37	4	22	9	0	6	21	0	1	2	0	241
15:00	0	143	32	3	11	12	0	3	18	0	1	0	0	223
15:15	0	129	36	0	11	5	0	2	25	1	0	0	0	209
15:30	1	149	39	2	10	9	0	0	19	0	0	0	0	229
15:45	0	146	30	7	13	12	0	1	21	0	0	0	0	230
16:00	0	132	49	6	5	7	0	5	19	0	0	0	0	223
16:15	0	164	38	2	6	19	0	0	32	1	3	0	0	265
16:30	1	148	32	0	12	11	0	5	26	0	0	0	0	235
16:45	1	156	41	0	11	9	0	2	15	0	1	0	0	236
17:00	0	166	42	0	10	10	0	3	21	0	1	0	0	253
17:15	0	132	29	1	6	4	1	10	21	0	0	0	0	204
17:30	0	155	36	0	10	10	0	7	20	0	1	0	0	239
17:45	0	155	20	0	11	17	0	2	13	0	0	0	0	218
18:00	0	130	27	0	11	9	0	2	17	0	0	0	0	196
18:15	0	129	18	0	3	9	0	0	24	0	2	0	0	185
18:30	1	161	15	0	2	7	0	1	25	0	2	0	0	214
18:45	0	125	15	0	3	5	0	2	20	0	0	0	0	170
19:00	0	128	20	0	5	5	0	2	20	0	0	0	0	180
19:15	0	140	15	0	3	7	0	2	23	0	1	0	0	191
19:30	0	103	8	0	1	6	0	1	20	0	0	0	0	139
19:45	0	86	6	0	1	2	0	0	20	0	1	0	0	116
20:00	0	53	5	0	3	5	0	0	14	0	0	0	0	80
20:15	0	57	12	0	3	8	0	0	22	0	0	0	0	102
20:30	0	48	7	0	1	1	0	1	21	0	0	0	0	79
20:45	0	42	7	0	1	11	0	2	18	0	0	0	0	81
21:00	0	33	1	0	0	4	0	1	26	0	1	0	0	66
21:15	0	53	9	0	3	9	0	1	18	0	1	0	0	94
21:30	0	34	2	0	0	4	0	1	20	0	2	0	0	63
21:45	0	47	4	0	0	5	0	1	12	0	2	0	0	71
22:00	0	56	1	0	0	3	0	2	9	0	0	0	0	71
22:15	0	31	2	0	0	8	0	0	16	0	2	0	0	59
22:30	0	44	1	0	0	4	0	1	22	0	3	0	0	75
22:45	0	28	3	0	0	3	0	1	19	0	1	0	0	55
23:00	0	33	5	0	0	4	0	0	22	0	2	0	0	66
23:15	0	40	2	0	0	5	0	1	19	0	1	0	0	68
23:30	0	66	4	0	0	11	0	1	23	0	1	0	0	106
23:45	0	78	1	0	2	4	0	2	19	0	2	0	0	108
TOTAL	8	4,781	985	28	323	403	1	107	###	2	46	10	0	7,752

PM PEAK HOUR	4:15 PM
PM PEAK VOLUME	989

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	15	9,159	2,202	55	714	855	1	164	###	4	99	30	0	15,258
% OF TOTAL	0.1%	60.0%	14.4%	0.4%	4.7%	5.6%	0.0%	1.1%	12.8%	0.0%	0.6%	0.2%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 15, 2022
JOB #: SC3292

CITY: Rialto
LOCATION: CLASS3 Santa Ana west of Riverside

AM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
0:15	0	3	1	0	0	0	0	1	0	0	1	0	0	6
0:30	0	2	1	0	1	0	0	0	0	0	0	0	0	4
0:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2
1:00	0	5	0	0	0	0	0	0	1	0	0	0	0	6
1:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:30	0	2	0	0	0	0	0	0	1	0	0	0	0	3
1:45	0	0	1	0	0	0	0	0	1	0	0	0	0	2
2:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:15	0	0	0	0	0	0	0	0	2	0	0	0	0	2
2:30	0	2	1	0	0	1	0	1	1	0	0	0	0	6
2:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	3	0	0	1	0	0	0	0	4
3:15	0	1	1	0	0	0	0	1	3	0	0	0	0	6
3:30	0	0	0	0	0	0	0	1	0	0	0	0	0	1
3:45	0	4	2	0	0	0	0	1	0	0	0	0	0	7
4:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
4:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
4:30	0	9	0	0	0	0	0	0	3	0	0	0	0	12
4:45	0	3	1	0	1	0	0	0	8	0	0	0	0	13
5:00	0	3	3	0	0	1	0	1	1	0	0	0	0	9
5:15	0	2	4	0	2	4	0	0	0	0	0	0	0	12
5:30	0	3	1	0	1	0	0	1	2	0	0	0	0	8
5:45	0	5	4	0	2	2	0	0	2	0	0	0	0	15
6:00	0	2	3	0	1	0	0	0	1	0	0	0	0	7
6:15	0	6	3	0	1	0	0	0	1	0	0	0	0	11
6:30	0	12	2	0	1	0	0	1	2	1	0	0	0	19
6:45	0	14	8	0	3	2	0	0	2	1	1	0	0	31
7:00	0	4	2	0	4	0	0	1	1	0	0	0	0	12
7:15	0	10	4	0	1	1	0	0	4	0	0	0	0	20
7:30	0	17	6	0	1	1	0	0	4	0	0	0	0	29
7:45	0	10	5	0	3	0	0	2	0	0	0	0	0	20
8:00	0	10	6	0	4	1	0	1	4	0	0	0	0	26
8:15	0	7	4	0	3	0	0	0	1	0	0	0	0	15
8:30	0	9	3	0	2	0	0	1	4	0	0	0	0	19
8:45	0	6	6	0	2	0	0	0	2	0	0	0	0	16
9:00	0	8	4	0	4	1	0	0	2	0	0	0	0	19
9:15	0	4	3	0	5	1	0	0	4	1	0	0	0	18
9:30	0	7	4	0	7	0	0	3	4	0	0	0	0	25
9:45	0	7	3	0	7	1	0	3	5	0	0	0	0	26
10:00	0	4	4	0	3	2	0	0	4	0	0	0	0	17
10:15	0	6	5	0	1	0	0	0	5	0	0	0	0	17
10:30	0	11	3	0	2	1	0	0	0	0	0	0	0	17
10:45	0	4	7	0	3	1	0	0	4	0	0	0	0	19
11:00	0	6	4	0	5	1	0	2	0	0	0	0	0	18
11:15	0	13	2	0	8	0	0	3	0	0	0	0	0	26
11:30	0	4	4	0	3	0	0	0	3	0	0	0	0	14
11:45	0	3	4	0	4	0	0	2	0	0	0	0	0	13
TOTAL	0	245	122	0	85	24	0	26	83	3	2	0	0	590

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	95

PM	EASTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	4	5	0	2	0	0	0	2	0	0	0	0	13
12:15	0	6	5	0	0	0	0	0	0	0	0	0	0	11
12:30	0	9	3	0	5	0	0	0	6	0	0	0	0	23
12:45	0	8	4	0	2	1	0	0	2	0	0	0	0	17
13:00	0	10	9	0	2	0	0	0	2	0	0	0	0	23
13:15	0	6	5	0	2	3	0	0	3	0	0	0	0	19
13:30	0	24	12	0	6	0	0	1	2	0	0	0	0	45
13:45	0	12	9	0	3	0	0	0	3	0	0	0	0	27
14:00	0	18	11	0	3	2	0	0	3	0	0	0	0	37
14:15	0	12	8	0	3	1	0	0	2	0	0	0	0	26
14:30	0	32	11	0	0	1	0	0	1	0	0	0	0	45
14:45	0	15	7	0	1	1	0	1	3	1	0	0	0	29
15:00	0	18	9	0	4	0	0	0	1	0	0	0	0	32
15:15	0	15	7	0	3	2	0	1	3	0	0	0	0	31
15:30	0	30	13	0	4	1	0	0	3	0	0	0	0	51
15:45	1	21	8	0	5	1	0	0	2	0	0	0	0	38
16:00	0	30	8	0	1	2	0	0	1	0	0	0	0	42
16:15	0	24	9	0	3	2	0	1	1	0	0	0	0	40
16:30	0	17	4	0	1	1	0	0	5	0	0	0	0	28
16:45	0	18	4	0	1	1	0	0	5	0	0	0	0	29
17:00	0	18	5	0	2	1	0	0	2	0	0	0	0	28
17:15	0	18	9	0	5	4	0	0	1	0	0	0	0	37
17:30	0	19	9	0	1	1	0	0	3	0	0	0	0	33
17:45	0	14	7	0	1	0	0	1	4	0	0	0	0	27
18:00	0	7	3	0	1	1	0	0	3	0	0	0	0	15
18:15	0	12	8	0	0	0	0	1	1	0	0	0	0	22
18:30	0	15	4	0	0	0	0	1	0	0	0	0	0	20
18:45	0	7	1	0	0	2	0	0	3	0	0	0	0	13
19:00	0	5	2	1	0	0	0	0	0	0	0	0	0	8
19:15	0	4	4	0	0	1	0	0	0	0	0	0	0	9
19:30	0	10	3	0	0	0	0	0	0	0	0	0	0	13
19:45	0	5	1	0	0	0	0	0	1	0	0	0	0	7
20:00	0	1	0	0	1	0	0	1	2	0	0	0	0	5
20:15	0	4	2	0	0	0	0	0	0	0	0	0	0	6
20:30	0	8	1	0	0	0	0	0	1	0	1	0	0	11
20:45	0	1	1	0	0	2	0	0	1	0	0	0	0	5
21:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
21:15	0	5	0	0	1	0	0	0	1	0	0	0	0	7
21:30	0	1	1	0	0	1	0	0	0	0	0	0	0	3
21:45	0	1	0	0	0	0	0	0	0	0	1	0	0	2
22:00	0	1	2	0	1	1	0	0	0	0	0	0	0	5
22:15	0	1	0	0	0	1	0	0	1	0	0	0	0	3
22:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
22:45	0	6	0	0	0	0	0	1	1	0	0	0	0	8
23:00	0	6	2	0	0	1	0	0	1	0	0	0	0	10
23:15	0	0	2	0	0	1	0	0	3	0	0	0	0	6
23:30	0	0	0	0	0	1	0	0	0	0	1	0	0	2
23:45	0	5	0	0	0	0	0	0	2	0	0	0	0	7
TOTAL	1	508	219	1	64	37	0	9	81	1	3	0	0	924

PM PEAK HOUR	3:30 PM
PM PEAK VOLUME	171

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	1	753	341	1	149	61	0	35	164	4	5	0	0	1,514
% OF TOTAL	0.1%	49.7%	22.5%	0.1%	9.8%	4.0%	0.0%	2.3%	10.8%	0.3%	0.3%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	5	1,647	734	1	311	131	0	63	282	4	10	0	0	3,188
% OF TOTAL	0.3%	108.8%	48.5%	0.1%	20.5%	8.7%	0.0%	4.2%	18.6%	0.3%	0.7%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 15, 2022
JOB #: SC3292

CITY: Rialto
LOCATION: CLASS3 Santa Ana west of Riverside

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	6	3	0	0	1	0	0	0	0	0	0	0	10
0:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
0:30	0	1	0	0	0	2	0	0	0	0	0	0	0	3
0:45	0	1	1	0	0	1	0	0	1	0	1	0	0	5
1:00	0	1	0	0	0	1	0	0	1	0	0	0	0	3
1:15	0	2	0	0	0	0	0	0	0	0	1	0	0	3
1:30	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:45	0	3	1	0	1	0	0	0	0	0	0	0	0	5
2:00	0	2	1	0	0	0	0	0	1	0	0	0	0	4
2:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:30	0	1	1	0	0	0	0	0	1	0	0	0	0	3
2:45	0	6	0	0	0	0	0	1	1	0	0	0	0	8
3:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
3:15	0	6	4	0	0	0	0	0	0	0	0	0	0	10
3:30	0	7	3	0	0	0	0	0	1	0	0	0	0	11
3:45	0	17	8	0	1	1	0	0	1	0	0	0	0	28
4:00	0	3	4	0	0	0	0	2	0	0	0	0	0	9
4:15	0	5	2	0	0	0	0	1	0	0	0	0	0	8
4:30	0	14	8	0	0	2	0	0	0	0	0	0	0	24
4:45	0	20	8	0	1	1	0	0	0	0	0	0	0	30
5:00	0	8	8	0	0	0	0	0	0	0	0	0	0	16
5:15	0	11	6	0	1	0	0	0	1	0	0	0	0	19
5:30	0	9	6	0	1	2	0	0	0	0	0	0	0	18
5:45	0	13	8	0	0	0	0	0	0	0	0	0	0	21
6:00	0	9	6	0	2	2	0	0	1	0	0	0	0	20
6:15	0	15	6	0	0	0	0	0	1	0	0	0	0	22
6:30	0	14	6	0	2	0	0	0	1	0	0	0	0	23
6:45	0	19	11	0	4	1	0	0	3	0	0	0	0	38
7:00	0	19	9	0	2	0	0	0	3	0	0	0	0	33
7:15	0	11	2	0	3	0	0	0	2	0	0	0	0	18
7:30	0	17	3	0	5	2	0	0	0	0	0	0	0	27
7:45	0	19	6	0	0	0	0	0	4	0	0	0	0	29
8:00	0	14	5	0	3	1	0	0	0	0	0	0	0	23
8:15	0	13	7	0	4	3	0	0	2	0	0	0	0	29
8:30	0	8	7	0	4	1	0	0	1	0	1	0	0	22
8:45	0	8	8	0	5	1	0	0	4	0	0	0	0	26
9:00	1	8	6	0	1	1	0	0	1	0	0	0	0	18
9:15	0	10	3	0	2	2	0	0	2	0	0	0	0	19
9:30	0	14	4	0	3	2	0	0	1	0	0	0	0	24
9:45	0	8	5	0	2	0	0	0	5	0	0	0	0	20
10:00	0	12	4	0	5	0	0	0	2	0	0	0	0	23
10:15	0	7	10	0	5	2	0	0	2	0	0	0	0	26
10:30	0	9	5	0	3	1	0	0	3	0	0	0	0	21
10:45	0	11	5	0	2	0	0	0	3	0	0	0	0	21
11:00	0	4	4	0	6	1	0	0	0	0	0	0	0	15
11:15	0	7	3	0	6	0	0	0	2	0	0	0	0	18
11:30	0	7	9	0	4	0	0	0	2	0	0	0	0	22
11:45	0	5	5	0	1	0	0	0	2	0	0	0	0	13
TOTAL	1	412	212	0	79	31	0	4	56	0	3	0	0	798

AM PEAK HOUR	6:45 AM
AM PEAK VOLUME	116

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	18	4	0	0	1	0	1	2	0	0	0	0	26
12:15	0	10	5	0	5	0	0	0	3	0	0	0	0	23
12:30	0	3	6	0	1	0	0	0	4	0	0	0	0	14
12:45	0	16	8	0	1	2	0	0	2	0	0	0	0	29
13:00	0	8	5	0	6	1	0	0	2	0	0	0	0	22
13:15	0	10	5	0	3	2	0	0	1	0	0	0	0	21
13:30	0	13	7	0	0	2	0	0	0	0	0	0	0	22
13:45	0	15	4	0	3	1	0	0	0	0	0	0	0	23
14:00	0	15	9	0	2	1	0	1	4	0	0	0	0	32
14:15	0	13	4	0	2	2	0	0	3	0	0	0	0	24
14:30	0	21	6	0	4	1	0	2	2	0	0	0	0	36
14:45	0	27	7	0	5	3	0	0	4	0	0	0	0	46
15:00	1	20	11	0	6	0	0	2	1	0	0	0	0	41
15:15	0	27	10	0	4	0	0	1	5	0	0	0	0	47
15:30	1	17	7	0	2	1	0	1	2	0	0	0	0	31
15:45	0	18	7	0	4	1	0	2	2	0	0	0	0	34
16:00	0	17	5	0	2	0	0	0	1	0	0	0	0	25
16:15	0	10	6	0	3	0	0	4	5	0	0	0	0	28
16:30	0	12	6	0	6	2	0	1	1	0	0	0	0	28
16:45	0	12	6	0	6	2	0	1	1	0	0	0	0	28
17:00	0	15	5	0	1	1	0	1	1	0	0	0	0	24
17:15	0	15	3	0	2	1	0	1	1	0	0	0	0	23
17:30	0	19	3	0	1	0	0	1	1	0	0	0	0	25
17:45	0	15	3	0	2	2	0	2	1	0	0	0	0	25
18:00	0	10	2	0	2	0	0	0	4	0	0	0	0	18
18:15	0	9	6	0	1	0	0	1	0	0	0	0	0	17
18:30	1	5	2	0	1	1	0	0	0	0	0	0	0	10
18:45	0	6	1	0	0	0	0	0	0	0	0	0	0	7
19:00	0	8	0	0	1	1	0	0	0	0	0	0	0	10
19:15	0	10	3	0	1	0	0	1	0	0	0	0	0	15
19:30	0	11	3	0	1	1	0	0	0	0	0	0	0	16
19:45	0	11	0	0	1	2	0	0	1	0	0	0	0	15
20:00	0	1	1	0	0	1	0	0	0	0	0	0	0	3
20:15	0	2	0	0	0	0	0	0	2	0	0	0	0	4
20:30	0	2	3	0	2	1	0	0	0	0	0	0	0	8
20:45	0	8	1	0	1	0	0	0	0	0	0	0	0	10
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	5	3	0	0	1	0	1	0	0	0	0	0	10
21:30	0	3	1	0	0	0	0	0	1	0	0	0	0	5
21:45	0	3	2	0	0	1	0	0	0	0	0	0	0	6
22:00	0	3	2	0	0	1	0	0	1	0	0	0	0	7
22:15	0	3	2	0	0	1	0	0	0	0	1	0	0	7
22:30	0	6	0	0	0	0	0	0	1	0	1	0	0	8
22:45	0	2	1	0	0	1	0	0	1	0	0	0	0	5
23:00	0	4	3	0	0	0	0	0	0	0	0	0	0	7
23:15	0	1	0	0	0	0	0	0	2	0	0	0	0	3
23:30	0	1	1	0	0	1	0	0	0	0	0	0	0	3
23:45	0	2	2	0	1	0	0	0	0	0	0	0	0	5
TOTAL	3	482	181	0	83	39	0	24	62	0	2	0	0	876

PM PEAK HOUR	2:30 PM
PM PEAK VOLUME	170

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	4	894	393	0	162	70	0	28	118	0	5	0	0	1,674
% OF TOTAL	0.2%	53.4%	23.5%	0.0%	9.7%	4.2%	0.0%	1.7%	7.0%	0.0%	0.3%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

APPENDIX 3.2: EXISTING (2022) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	104	94	13	5	0
Future Vol, veh/h	4	104	94	13	5	0
Conflicting Peds, #/hr	0	0	0	1	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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	121	109	15	6	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	125	0	-	0	249	118
Stage 1	-	-	-	-	118	-
Stage 2	-	-	-	-	131	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1474	-	-	-	744	939
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	900	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1473	-	-	-	740	938
Mov Cap-2 Maneuver	-	-	-	-	740	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	899	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1473	-	-	-	740
HCM Lane V/C Ratio	0.003	-	-	-	0.008
HCM Control Delay (s)	7.5	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	106	107	5	2	0
Future Vol, veh/h	3	106	107	5	2	0
Conflicting Peds, #/hr	0	0	0	1	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	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	125	126	6	2	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	133	0	-	0	263	130
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	133	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1464	-	-	-	730	925
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	898	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1463	-	-	-	726	924
Mov Cap-2 Maneuver	-	-	-	-	726	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1463	-	-	-	726
HCM Lane V/C Ratio	0.002	-	-	-	0.003
HCM Control Delay (s)	7.5	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	8	88	13	24	72	22	11	32	12	6	45	29
Future Vol, veh/h	8	88	13	24	72	22	11	32	12	6	45	29
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	109	16	30	89	27	14	40	15	7	56	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	125	0	0	346	314	117	329	309	104
Stage 1	-	-	-	-	-	-	137	137	-	164	164	-
Stage 2	-	-	-	-	-	-	209	177	-	165	145	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1484	-	-	1474	-	-	612	605	941	628	609	956
Stage 1	-	-	-	-	-	-	871	787	-	843	766	-
Stage 2	-	-	-	-	-	-	798	756	-	842	781	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1483	-	-	1474	-	-	535	587	941	573	591	955
Mov Cap-2 Maneuver	-	-	-	-	-	-	535	587	-	573	591	-
Stage 1	-	-	-	-	-	-	865	781	-	836	748	-
Stage 2	-	-	-	-	-	-	695	739	-	781	776	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	1.5	11.4	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	626	1483	-	-	1474	-	-	684
HCM Lane V/C Ratio	0.108	0.007	-	-	0.02	-	-	0.144
HCM Control Delay (s)	11.4	7.4	0	-	7.5	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.5

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	84	15	33	85	18	11	34	27	11	38	21
Future Vol, veh/h	7	84	15	33	85	18	11	34	27	11	38	21
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	99	18	39	100	21	13	40	32	13	45	25
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	8.5	8.8	8.1	8.1
HCM LOS	A	A	A	A

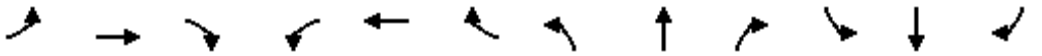
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	15%	8%	0%	28%	0%	16%
Vol Thru, %	47%	92%	0%	72%	0%	54%
Vol Right, %	38%	0%	100%	0%	100%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	72	91	15	118	18	70
LT Vol	11	7	0	33	0	11
Through Vol	34	84	0	85	0	38
RT Vol	27	0	15	0	18	21
Lane Flow Rate	85	107	18	139	21	82
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.106	0.151	0.021	0.198	0.025	0.104
Departure Headway (Hd)	4.503	5.073	4.33	5.14	4.295	4.551
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	796	708	826	698	833	787
Service Time	2.53	2.802	2.059	2.868	2.024	2.578
HCM Lane V/C Ratio	0.107	0.151	0.022	0.199	0.025	0.104
HCM Control Delay	8.1	8.7	7.2	9.1	7.1	8.1
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0.1	0.7	0.1	0.3

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	507	0	344	301	710	1055	630
Future Volume (vph)	507	0	344	301	710	1055	630
Turn Type	Perm	NA	Perm	Prot	NA	NA	Perm
Protected Phases		8		5	2	6	
Permitted Phases	8		8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	9.6	23.2	16.2	16.2
Total Split (s)	31.0	31.0	31.0	18.0	59.0	41.0	41.0
Total Split (%)	34.4%	34.4%	34.4%	20.0%	65.6%	45.6%	45.6%
Yellow Time (s)	4.8	4.8	4.8	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	6.2	6.2	6.2
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 80.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Riverside Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	507	0	344	301	710	0	0	1055	630
Future Volume (veh/h)	0	0	0	507	0	344	301	710	0	0	1055	630
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				598	0	126	320	755	0	0	1122	476
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				780	0	347	425	3174	0	0	2775	684
Arrive On Green				0.22	0.00	0.22	0.12	0.61	0.00	0.00	0.42	0.42
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1610
Grp Volume(v), veh/h				598	0	126	320	755	0	0	1122	476
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1610
Q Serve(g_s), s				10.8	0.0	4.6	6.1	4.6	0.0	0.0	8.3	16.8
Cycle Q Clear(g_c), s				10.8	0.0	4.6	6.1	4.6	0.0	0.0	8.3	16.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				780	0	347	425	3174	0	0	2775	684
V/C Ratio(X)				0.77	0.00	0.36	0.75	0.24	0.00	0.00	0.40	0.70
Avail Cap(c_a), veh/h				1312	0	584	677	3939	0	0	3272	806
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				25.6	0.0	23.2	29.6	6.1	0.0	0.0	13.9	16.3
Incr Delay (d2), s/veh				1.6	0.0	0.6	1.0	0.1	0.0	0.0	0.1	2.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.4	0.0	1.7	2.5	1.2	0.0	0.0	2.7	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				27.2	0.0	23.8	30.6	6.2	0.0	0.0	14.0	18.9
LnGrp LOS				C	A	C	C	A	A	A	B	B
Approach Vol, veh/h					724			1075			1598	
Approach Delay, s/veh					26.6			13.4			15.5	
Approach LOS					C			B			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		48.7			13.0	35.7		20.8				
Change Period (Y+Rc), s		6.2			4.6	6.2		5.8				
Max Green Setting (Gmax), s		52.8			13.4	34.8		25.2				
Max Q Clear Time (g_c+I1), s		6.6			8.1	18.8		12.8				
Green Ext Time (p_c), s		8.4			0.3	10.7		2.2				

Intersection Summary												
HCM 6th Ctrl Delay			17.2									
HCM 6th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

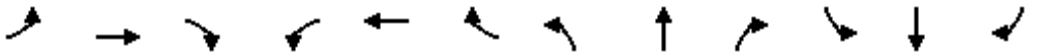
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	307	4	476	705	455	1107
Future Volume (vph)	307	4	476	705	455	1107
Turn Type	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		2	1	6
Permitted Phases	4		4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	15.8	15.8	15.8	23.2	9.6	16.2
Total Split (s)	31.0	31.0	31.0	36.0	23.0	59.0
Total Split (%)	34.4%	34.4%	34.4%	40.0%	25.6%	65.6%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	6.2	4.6	6.2
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 80.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Riverside Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	307	4	476	0	0	0	0	705	467	455	1107	0
Future Volume (veh/h)	307	4	476	0	0	0	0	705	467	455	1107	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	474	0	256				0	783	457	506	1230	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	758	0	337				0	1304	599	619	2235	0
Arrive On Green	0.21	0.00	0.21				0.00	0.38	0.38	0.18	0.62	0.00
Sat Flow, veh/h	3619	0	1610				0	3629	1589	3510	3705	0
Grp Volume(v), veh/h	474	0	256				0	783	457	506	1230	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1589	1755	1805	0
Q Serve(g_s), s	8.3	0.0	10.5				0.0	12.8	17.6	9.7	13.8	0.0
Cycle Q Clear(g_c), s	8.3	0.0	10.5				0.0	12.8	17.6	9.7	13.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	758	0	337				0	1304	599	619	2235	0
V/C Ratio(X)	0.63	0.00	0.76				0.00	0.60	0.76	0.82	0.55	0.00
Avail Cap(c_a), veh/h	1303	0	580				0	1473	677	923	2724	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.2	0.0	26.0				0.0	17.6	19.1	27.7	7.7	0.0
Incr Delay (d2), s/veh	0.9	0.0	3.5				0.0	0.7	5.1	2.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	4.0				0.0	4.6	6.5	3.9	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	0.0	29.5				0.0	18.3	24.2	29.9	8.0	0.0
LnGrp LOS	C	A	C				A	B	C	C	A	A
Approach Vol, veh/h		730						1240			1736	
Approach Delay, s/veh		27.2						20.4			14.4	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.9	32.6		20.5		49.5
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2
Max Green Setting (Gmax), s	18.4	29.8		25.2		52.8
Max Q Clear Time (g_c+I1), s	11.7	19.6		12.5		15.8
Green Ext Time (p_c), s	0.6	6.8		2.2		15.7

Intersection Summary		
HCM 6th Ctrl Delay		18.9
HCM 6th LOS		B

Notes

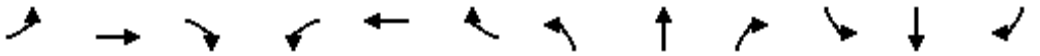
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	242	33	23	18	60	883	19	1186
Future Volume (vph)	242	33	23	18	60	883	19	1186
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	28.8	28.8	9.6	27.5	9.6	30.5
Total Split (s)	32.8	32.8	32.8	32.8	9.8	47.2	10.0	47.4
Total Split (%)	36.4%	36.4%	36.4%	36.4%	10.9%	52.4%	11.1%	52.7%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 81.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Riverside Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	33	53	23	18	46	60	883	25	19	1186	379
Future Volume (veh/h)	242	33	53	23	18	46	60	883	25	19	1186	379
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	275	38	41	26	20	35	68	1003	27	22	1348	373
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	402	444	391	392	444	395	88	1905	51	44	1424	383
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.53	0.53	0.02	0.51	0.51
Sat Flow, veh/h	1367	1805	1589	1341	1805	1606	1810	3590	97	1810	2812	757
Grp Volume(v), veh/h	275	38	41	26	20	35	68	504	526	22	852	869
Grp Sat Flow(s),veh/h/ln	1367	1805	1589	1341	1805	1606	1810	1805	1881	1810	1805	1764
Q Serve(g_s), s	15.8	1.3	1.6	1.2	0.7	1.4	3.0	14.8	14.8	1.0	35.9	39.0
Cycle Q Clear(g_c), s	17.2	1.3	1.6	2.9	0.7	1.4	3.0	14.8	14.8	1.0	35.9	39.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.43
Lane Grp Cap(c), veh/h	402	444	391	392	444	395	88	958	998	44	914	893
V/C Ratio(X)	0.68	0.09	0.10	0.07	0.05	0.09	0.78	0.53	0.53	0.50	0.93	0.97
Avail Cap(c_a), veh/h	526	608	535	513	608	541	116	958	998	120	914	893
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	23.6	23.7	24.8	23.4	23.6	38.3	12.4	12.4	39.2	18.8	19.5
Incr Delay (d2), s/veh	2.4	0.1	0.1	0.1	0.0	0.1	14.9	0.7	0.7	3.3	16.1	23.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.5	0.6	0.4	0.3	0.5	1.6	4.8	5.0	0.4	15.6	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	23.7	23.8	24.9	23.4	23.7	53.2	13.2	13.1	42.5	34.8	43.3
LnGrp LOS	C	C	C	C	C	C	D	B	B	D	C	D
Approach Vol, veh/h		354			81			1098			1743	
Approach Delay, s/veh		30.7			24.0			15.6			39.2	
Approach LOS		C			C			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	49.4		25.4	8.5	47.4		25.4				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		5.4				
Max Green Setting (Gmax), s	5.4	41.0		27.4	5.2	41.2		27.4				
Max Q Clear Time (g_c+I1), s	3.0	16.8		19.2	5.0	41.0		4.9				
Green Ext Time (p_c), s	0.0	8.8		0.8	0.0	0.2		0.3				

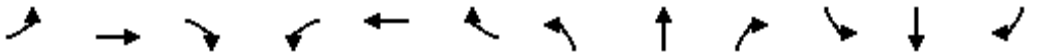
Intersection Summary			
HCM 6th Ctrl Delay		30.0	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	85	1	53	9	70	45	771	61	1050
Future Volume (vph)	85	1	53	9	70	45	771	61	1050
Turn Type	Perm	NA	Perm	NA	Perm	Prot	NA	Prot	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	28.4	28.4	26.4	26.4	26.4	9.6	26.5	9.6	27.5
Total Split (s)	28.6	28.6	28.6	28.6	28.6	11.6	47.6	13.8	49.8
Total Split (%)	31.8%	31.8%	31.8%	31.8%	31.8%	12.9%	52.9%	15.3%	55.3%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	3.6	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	4.6	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 59.5
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Riverside Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	1	37	53	9	70	45	771	54	61	1050	82
Future Volume (veh/h)	85	1	37	53	9	70	45	771	54	61	1050	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	96	1	31	60	10	72	51	866	59	69	1180	89
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	356	9	264	335	320	271	87	1689	115	104	1710	129
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.05	0.49	0.49	0.06	0.50	0.50
Sat Flow, veh/h	1427	51	1567	1399	1900	1610	1810	3424	233	1810	3403	256
Grp Volume(v), veh/h	96	0	32	60	10	72	51	457	468	69	625	644
Grp Sat Flow(s),veh/h/ln	1427	0	1618	1399	1900	1610	1810	1805	1852	1810	1805	1854
Q Serve(g_s), s	3.5	0.0	1.0	2.2	0.3	2.3	1.6	10.1	10.1	2.2	15.5	15.5
Cycle Q Clear(g_c), s	3.8	0.0	1.0	3.2	0.3	2.3	1.6	10.1	10.1	2.2	15.5	15.5
Prop In Lane	1.00		0.97	1.00		1.00	1.00		0.13	1.00		0.14
Lane Grp Cap(c), veh/h	356	0	272	335	320	271	87	890	914	104	907	932
V/C Ratio(X)	0.27	0.00	0.12	0.18	0.03	0.27	0.59	0.51	0.51	0.66	0.69	0.69
Avail Cap(c_a), veh/h	680	0	639	652	751	636	216	1264	1297	284	1331	1367
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	20.7	22.1	20.4	21.3	27.4	10.1	10.1	27.1	11.1	11.1
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.3	0.0	0.5	2.3	0.7	0.6	2.7	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.3	0.7	0.1	0.8	0.7	2.8	2.8	0.9	4.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	0.0	20.9	22.3	20.5	21.8	29.7	10.7	10.7	29.8	12.5	12.4
LnGrp LOS	C	A	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		128			142			976			1338	
Approach Delay, s/veh		22.0			21.9			11.7			13.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	35.5		15.3	7.4	36.0		15.3				
Change Period (Y+Rc), s	4.6	6.5		5.4	4.6	6.5		5.4				
Max Green Setting (Gmax), s	9.2	41.1		23.2	7.0	43.3		23.2				
Max Q Clear Time (g_c+I1), s	4.2	12.1		5.8	3.6	17.5		5.2				
Green Ext Time (p_c), s	0.0	8.2		0.3	0.0	12.0		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		13.6	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	161	108	6	3	5
Future Vol, veh/h	0	161	108	6	3	5
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, %	0	0	0	0	0	0
Mvmt Flow	0	169	114	6	3	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	120	0	-	0	286	117
Stage 1	-	-	-	-	117	-
Stage 2	-	-	-	-	169	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1480	-	-	-	709	941
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	866	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1480	-	-	-	709	941
Mov Cap-2 Maneuver	-	-	-	-	709	-
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	866	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1480	-	-	-	838
HCM Lane V/C Ratio	-	-	-	-	0.01
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	163	112	0	7	2
Future Vol, veh/h	1	163	112	0	7	2
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	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	175	120	0	8	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	120	0	-	0	297	120
Stage 1	-	-	-	-	120	-
Stage 2	-	-	-	-	177	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1480	-	-	-	698	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1480	-	-	-	697	937
Mov Cap-2 Maneuver	-	-	-	-	697	-
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	859	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1480	-	-	-	739
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s)	7.4	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	23	135	12	9	83	17	11	51	10	21	27	19
Future Vol, veh/h	23	135	12	9	83	17	11	51	10	21	27	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	147	13	10	90	18	12	55	11	23	29	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	160	0	0	348	332	154	356	329	99
Stage 1	-	-	-	-	-	-	204	204	-	119	119	-
Stage 2	-	-	-	-	-	-	144	128	-	237	210	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1495	-	-	1432	-	-	610	591	897	603	593	962
Stage 1	-	-	-	-	-	-	803	737	-	890	801	-
Stage 2	-	-	-	-	-	-	864	794	-	771	732	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1495	-	-	1432	-	-	563	576	897	541	578	962
Mov Cap-2 Maneuver	-	-	-	-	-	-	563	576	-	541	578	-
Stage 1	-	-	-	-	-	-	789	724	-	874	795	-
Stage 2	-	-	-	-	-	-	809	788	-	691	719	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.6	11.8	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	604	1495	-	-	1432	-	-	636
HCM Lane V/C Ratio	0.13	0.017	-	-	0.007	-	-	0.115
HCM Control Delay (s)	11.8	7.4	0	-	7.5	0	-	11.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.4

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	12	133	22	26	89	29	6	46	34	9	56	14
Future Vol, veh/h	12	133	22	26	89	29	6	46	34	9	56	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, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	143	24	28	96	31	6	49	37	10	60	15
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

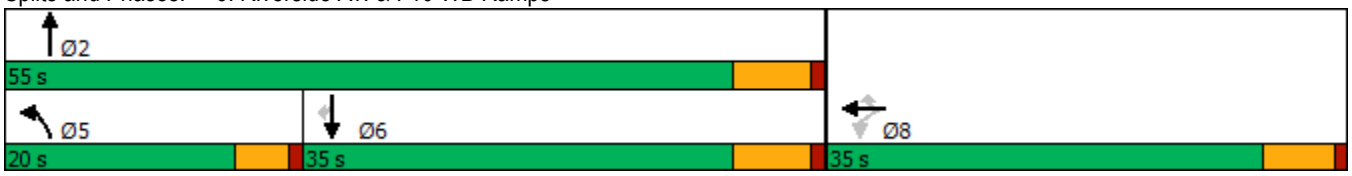
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9	8.7	8.3	8.4
HCM LOS	A	A	A	A

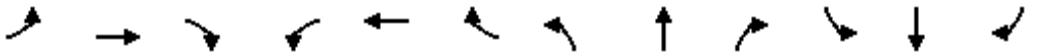
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	7%	8%	0%	23%	0%	11%
Vol Thru, %	53%	92%	0%	77%	0%	71%
Vol Right, %	40%	0%	100%	0%	100%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	145	22	115	29	79
LT Vol	6	12	0	26	0	9
Through Vol	46	133	0	89	0	56
RT Vol	34	0	22	0	29	14
Lane Flow Rate	92	156	24	124	31	85
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.118	0.221	0.029	0.179	0.038	0.112
Departure Headway (Hd)	4.598	5.106	4.36	5.201	4.383	4.744
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	779	702	819	689	815	754
Service Time	2.633	2.843	2.097	2.938	2.119	2.781
HCM Lane V/C Ratio	0.118	0.222	0.029	0.18	0.038	0.113
HCM Control Delay	8.3	9.3	7.2	9.1	7.3	8.4
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.8	0.1	0.6	0.1	0.4

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	416	0	482	333	1344	898	395
Future Volume (vph)	416	0	482	333	1344	898	395
Turn Type	Perm	NA	Perm	Prot	NA	NA	Perm
Protected Phases		8		5	2	6	
Permitted Phases	8		8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	9.6	23.2	16.2	16.2
Total Split (s)	35.0	35.0	35.0	20.0	55.0	35.0	35.0
Total Split (%)	38.9%	38.9%	38.9%	22.2%	61.1%	38.9%	38.9%
Yellow Time (s)	4.8	4.8	4.8	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	6.2	6.2	6.2
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 73.9
Natural Cycle: 45
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Riverside Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	416	0	482	333	1344	0	0	898	395
Future Volume (veh/h)	0	0	0	416	0	482	333	1344	0	0	898	395
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				549	0	258	343	1386	0	0	926	258
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				841	0	374	479	2866	0	0	2180	537
Arrive On Green				0.23	0.00	0.23	0.14	0.55	0.00	0.00	0.33	0.33
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1610
Grp Volume(v), veh/h				549	0	258	343	1386	0	0	926	258
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1610
Q Serve(g_s), s				7.7	0.0	8.2	5.2	9.1	0.0	0.0	6.1	7.1
Cycle Q Clear(g_c), s				7.7	0.0	8.2	5.2	9.1	0.0	0.0	6.1	7.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				841	0	374	479	2866	0	0	2180	537
V/C Ratio(X)				0.65	0.00	0.69	0.72	0.48	0.00	0.00	0.42	0.48
Avail Cap(c_a), veh/h				1895	0	843	970	4540	0	0	3376	832
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.4	0.0	19.6	23.0	7.6	0.0	0.0	14.4	14.7
Incr Delay (d2), s/veh				0.9	0.0	2.3	0.8	0.2	0.0	0.0	0.2	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.9	0.0	2.9	2.0	2.3	0.0	0.0	1.9	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.2	0.0	21.8	23.8	7.8	0.0	0.0	14.6	15.7
LnGrp LOS				C	A	C	C	A	A	A	B	B
Approach Vol, veh/h					807			1729			1184	
Approach Delay, s/veh					20.7			11.0			14.8	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	37.0		12.2	24.8		18.8						
Change Period (Y+Rc), s	6.2		4.6	6.2		5.8						
Max Green Setting (Gmax), s	48.8		15.4	28.8		29.2						
Max Q Clear Time (g_c+I1), s	11.1		7.2	9.1		10.2						
Green Ext Time (p_c), s	17.7		0.4	9.5		2.8						

Intersection Summary		
HCM 6th Ctrl Delay	14.3	
HCM 6th LOS	B	

Notes

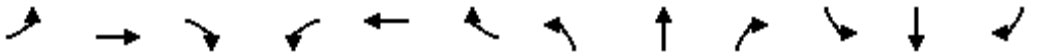
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	557	0	468	1121	349	965
Future Volume (vph)	557	0	468	1121	349	965
Turn Type	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		2	1	6
Permitted Phases	4		4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	15.8	15.8	15.8	23.2	9.6	16.2
Total Split (s)	30.0	30.0	30.0	44.0	16.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	48.9%	17.8%	66.7%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	6.2	4.6	6.2
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 88.2
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Riverside Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	557	0	468	0	0	0	0	1121	621	349	965	0
Future Volume (veh/h)	557	0	468	0	0	0	0	1121	621	349	965	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	683	0	220				0	1168	576	364	1005	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	833	0	371				0	1523	709	445	2250	0
Arrive On Green	0.23	0.00	0.23				0.00	0.44	0.44	0.13	0.62	0.00
Sat Flow, veh/h	3619	0	1610				0	3629	1609	3510	3705	0
Grp Volume(v), veh/h	683	0	220				0	1168	576	364	1005	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1609	1755	1805	0
Q Serve(g_s), s	14.7	0.0	10.0				0.0	23.4	25.5	8.3	11.9	0.0
Cycle Q Clear(g_c), s	14.7	0.0	10.0				0.0	23.4	25.5	8.3	11.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	833	0	371				0	1523	709	445	2250	0
V/C Ratio(X)	0.82	0.00	0.59				0.00	0.77	0.81	0.82	0.45	0.00
Avail Cap(c_a), veh/h	1070	0	476				0	1597	743	489	2373	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.9	0.0	28.1				0.0	19.4	20.0	34.8	8.1	0.0
Incr Delay (d2), s/veh	4.1	0.0	1.5				0.0	2.4	7.0	8.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	3.8				0.0	8.8	9.8	3.9	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	0.0	29.6				0.0	21.7	27.0	43.6	8.3	0.0
LnGrp LOS	C	A	C				A	C	C	D	A	A
Approach Vol, veh/h		903						1744			1369	
Approach Delay, s/veh		32.9						23.5			17.6	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.0	42.2		24.6		57.2						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	11.4	37.8		24.2		53.8						
Max Q Clear Time (g_c+I1), s	10.3	27.5		16.7		13.9						
Green Ext Time (p_c), s	0.1	8.5		2.2		12.2						

Intersection Summary												
HCM 6th Ctrl Delay			23.6									
HCM 6th LOS			C									

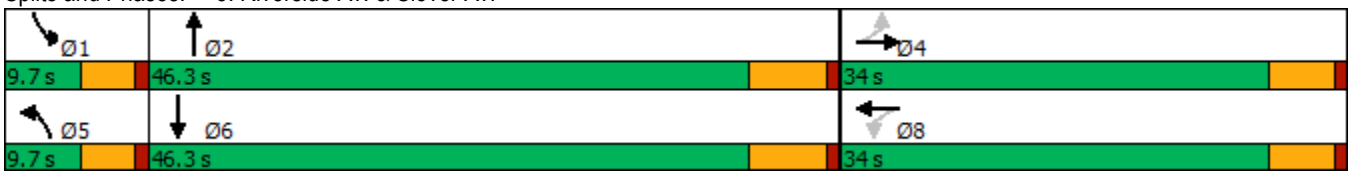
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	357	126	35	28	43	1304	32	1094
Future Volume (vph)	357	126	35	28	43	1304	32	1094
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	28.8	28.8	9.6	27.5	9.6	30.5
Total Split (s)	34.0	34.0	34.0	34.0	9.7	46.3	9.7	46.3
Total Split (%)	37.8%	37.8%	37.8%	37.8%	10.8%	51.4%	10.8%	51.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 81.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Riverside Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	357	126	130	35	28	81	43	1304	6	32	1094	307
Future Volume (veh/h)	357	126	130	35	28	81	43	1304	6	32	1094	307
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	364	129	100	36	29	63	44	1331	6	33	1116	312
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	474	645	464	401	582	519	68	1685	8	57	1256	347
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.04	0.46	0.46	0.03	0.45	0.45
Sat Flow, veh/h	1325	2002	1438	1167	1805	1610	1810	3685	17	1810	2785	770
Grp Volume(v), veh/h	364	115	114	36	29	63	44	652	685	33	719	709
Grp Sat Flow(s),veh/h/ln	1325	1805	1635	1167	1805	1610	1810	1805	1897	1810	1805	1750
Q Serve(g_s), s	22.9	4.0	4.4	2.0	1.0	2.4	2.1	26.3	26.4	1.5	31.2	32.1
Cycle Q Clear(g_c), s	25.3	4.0	4.4	6.3	1.0	2.4	2.1	26.3	26.4	1.5	31.2	32.1
Prop In Lane	1.00		0.88	1.00		1.00	1.00		0.01	1.00		0.44
Lane Grp Cap(c), veh/h	474	582	527	401	582	519	68	825	867	57	814	789
V/C Ratio(X)	0.77	0.20	0.22	0.09	0.05	0.12	0.64	0.79	0.79	0.57	0.88	0.90
Avail Cap(c_a), veh/h	488	601	544	413	601	536	107	843	886	107	843	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	21.1	21.2	23.5	20.0	20.5	40.7	19.8	19.8	41.0	21.5	21.8
Incr Delay (d2), s/veh	7.0	0.2	0.2	0.1	0.0	0.1	3.7	5.3	5.1	3.3	11.0	12.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	1.6	1.6	0.5	0.4	0.9	0.9	10.3	10.8	0.7	13.3	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	21.2	21.4	23.6	20.1	20.6	44.5	25.1	24.9	44.4	32.5	34.6
LnGrp LOS	D	C	C	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		593			128			1381			1461	
Approach Delay, s/veh		30.6			21.3			25.6			33.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	45.5		33.1	7.8	44.9		33.1				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		5.4				
Max Green Setting (Gmax), s	5.1	40.1		28.6	5.1	40.1		28.6				
Max Q Clear Time (g_c+I1), s	3.5	28.4		27.3	4.1	34.1		8.3				
Green Ext Time (p_c), s	0.0	7.6		0.4	0.0	4.6		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		29.6	
HCM 6th LOS		C	

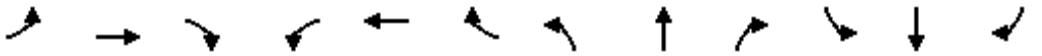
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	96	24	47	19	88	63	1145	53	1153
Future Volume (vph)	96	24	47	19	88	63	1145	53	1153
Turn Type	Perm	NA	Perm	NA	Perm	Prot	NA	Prot	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	28.4	28.4	26.4	26.4	26.4	9.6	26.5	9.6	27.5
Total Split (s)	28.6	28.6	28.6	28.6	28.6	12.0	49.4	12.0	49.4
Total Split (%)	31.8%	31.8%	31.8%	31.8%	31.8%	13.3%	54.9%	13.3%	54.9%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	3.6	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	4.6	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 63.8
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Riverside Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	24	56	47	19	88	63	1145	44	53	1153	61
Future Volume (veh/h)	96	24	56	47	19	88	63	1145	44	53	1153	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	102	26	32	50	20	67	67	1218	47	56	1227	61
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	344	129	159	308	317	269	101	1798	69	91	1755	87
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.06	0.51	0.51	0.05	0.50	0.50
Sat Flow, veh/h	1414	774	953	1364	1900	1610	1810	3544	137	1810	3496	174
Grp Volume(v), veh/h	102	0	58	50	20	67	67	620	645	56	633	655
Grp Sat Flow(s),veh/h/ln	1414	0	1727	1364	1900	1610	1810	1805	1875	1810	1805	1864
Q Serve(g_s), s	3.9	0.0	1.7	2.0	0.5	2.2	2.2	15.5	15.5	1.8	16.1	16.2
Cycle Q Clear(g_c), s	4.5	0.0	1.7	3.7	0.5	2.2	2.2	15.5	15.5	1.8	16.1	16.2
Prop In Lane	1.00		0.55	1.00		1.00	1.00		0.07	1.00		0.09
Lane Grp Cap(c), veh/h	344	0	288	308	317	269	101	916	952	91	906	936
V/C Ratio(X)	0.30	0.00	0.20	0.16	0.06	0.25	0.66	0.68	0.68	0.61	0.70	0.70
Avail Cap(c_a), veh/h	654	0	667	608	735	623	223	1290	1341	223	1290	1333
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	21.5	23.1	21.0	21.7	27.8	11.1	11.1	27.9	11.5	11.5
Incr Delay (d2), s/veh	0.5	0.0	0.3	0.2	0.1	0.5	2.7	1.3	1.2	2.5	1.4	1.4
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	1.2	0.0	0.7	0.6	0.2	0.8	0.9	4.3	4.4	0.7	4.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	0.0	21.9	23.4	21.1	22.2	30.5	12.3	12.3	30.4	12.9	12.8
LnGrp LOS	C	A	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		160			137			1332			1344	
Approach Delay, s/veh		22.8			22.5			13.2			13.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	37.0		15.4	8.0	36.6		15.4				
Change Period (Y+Rc), s	4.6	6.5		5.4	4.6	6.5		5.4				
Max Green Setting (Gmax), s	7.4	42.9		23.2	7.4	42.9		23.2				
Max Q Clear Time (g_c+I1), s	3.8	17.5		6.5	4.2	18.2		5.7				
Green Ext Time (p_c), s	0.0	11.8		0.5	0.0	11.9		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		14.3	
HCM 6th LOS		B	

APPENDIX 3.3: EXISTING (2022) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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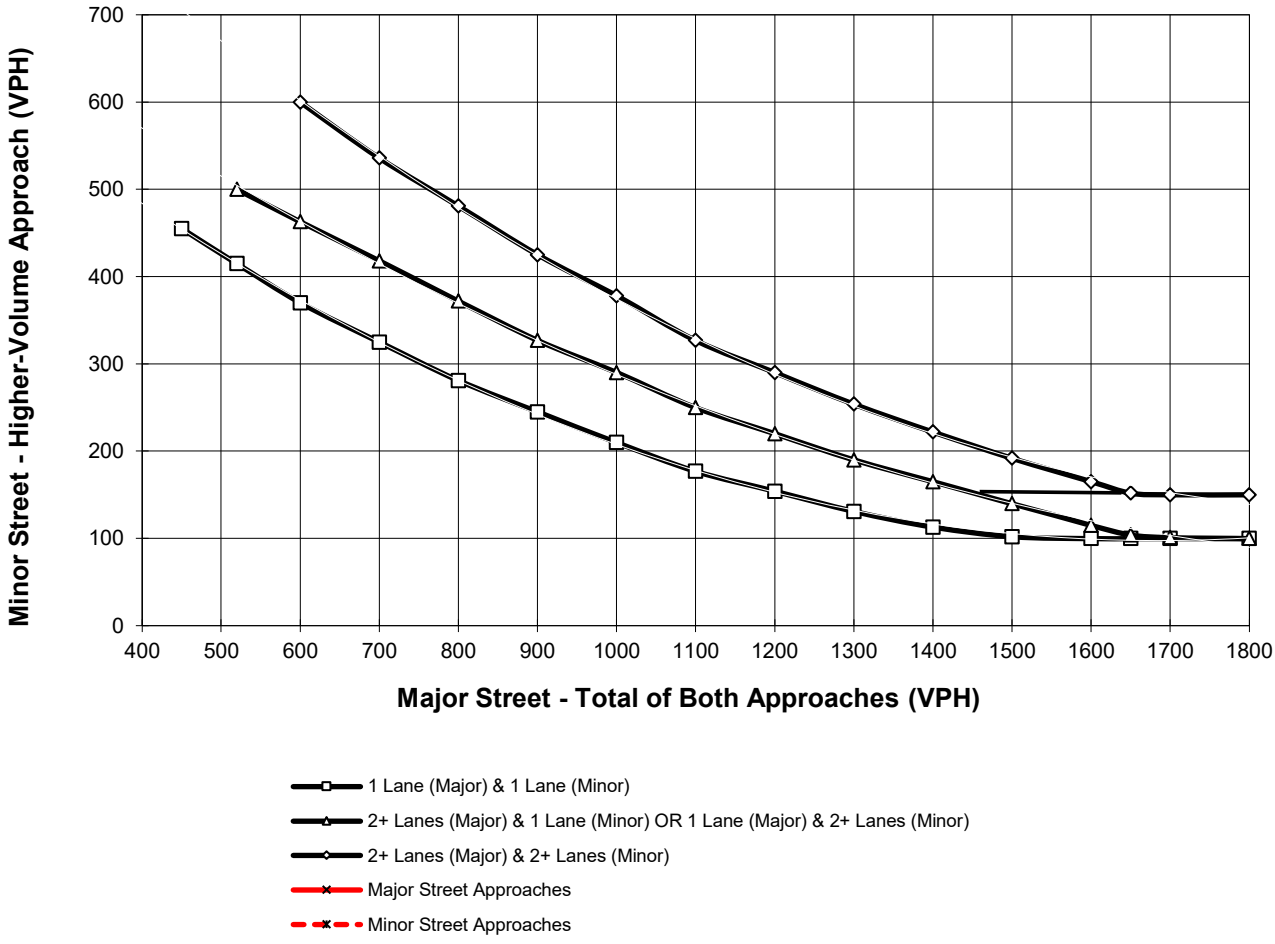
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2022) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **275**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 1**
High Volume Approach (VPH) = **8**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

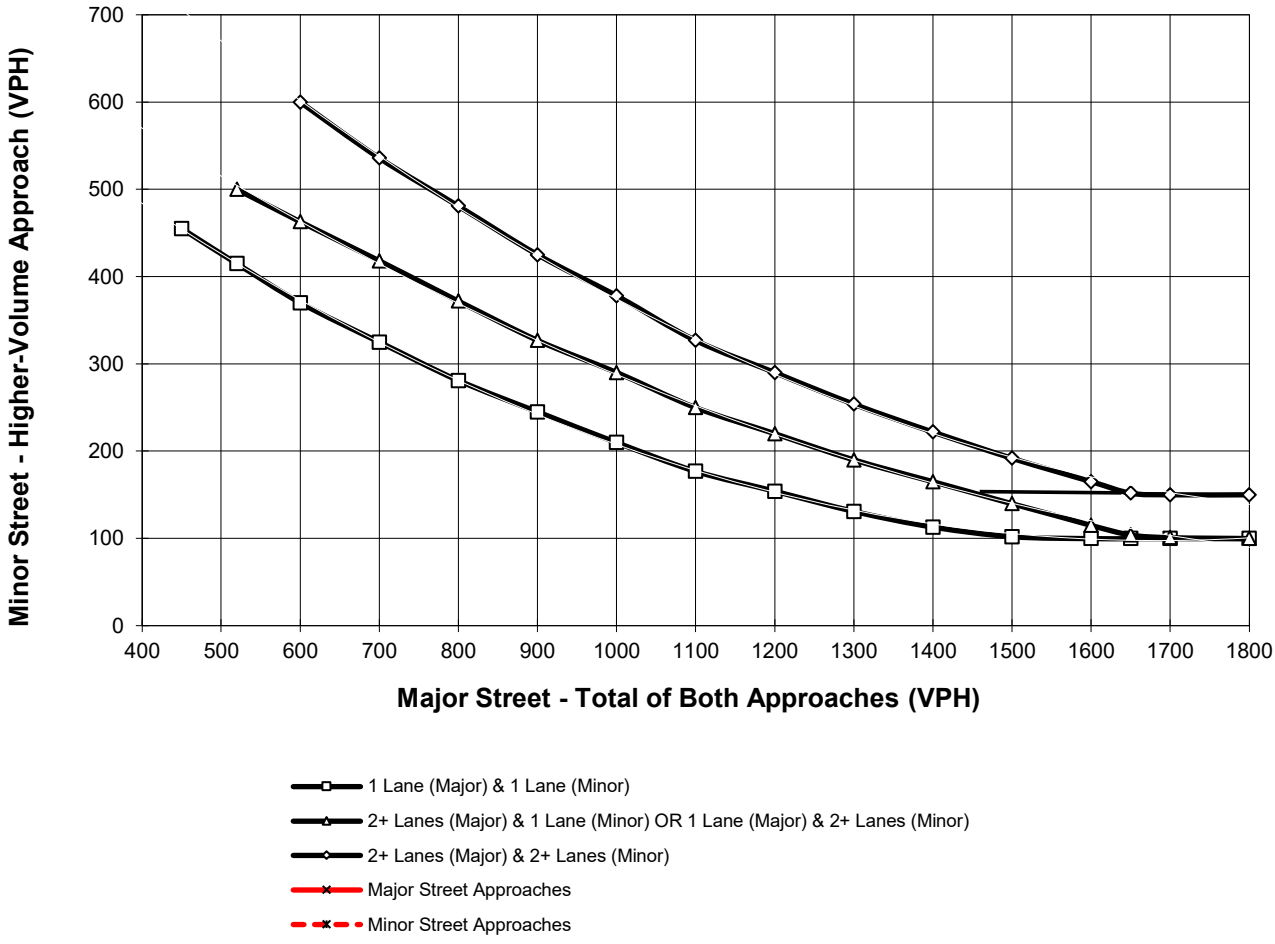
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2022) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **276**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**
High Volume Approach (VPH) = **9**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

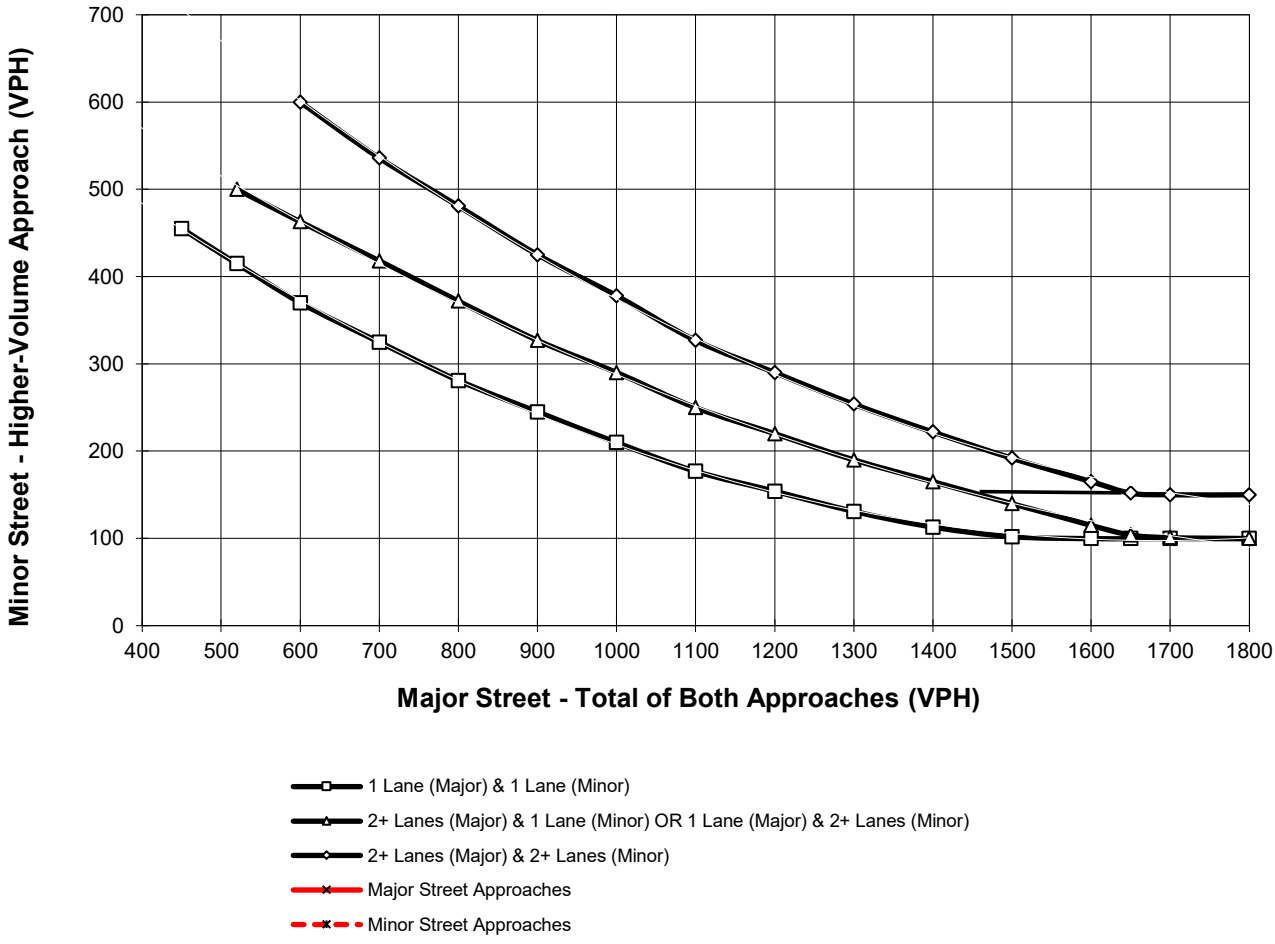
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2022) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **279**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Lilac Av.**
High Volume Approach (VPH) = **72**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

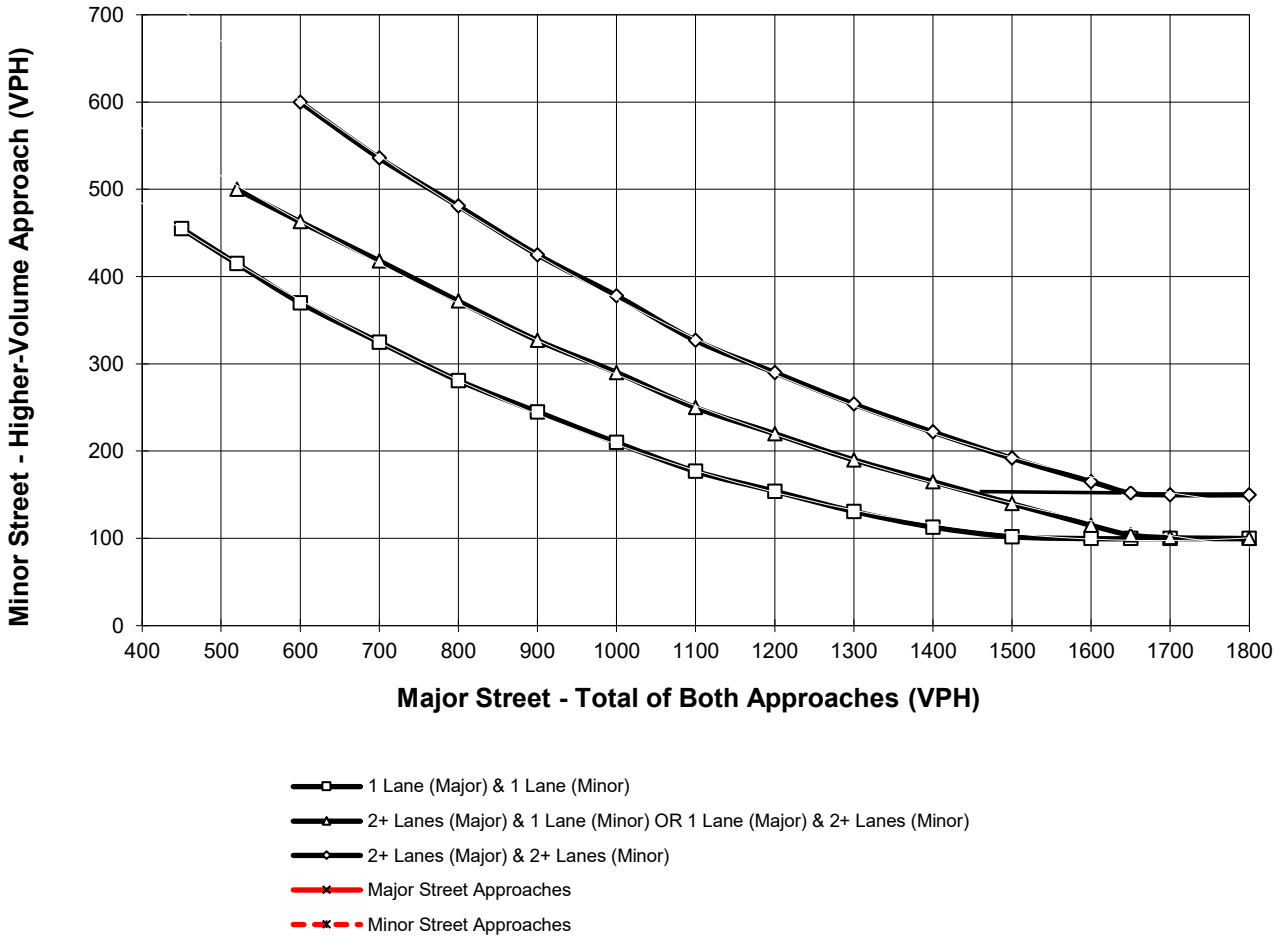
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2022) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **311**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Willow Av.**
High Volume Approach (VPH) = **86**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

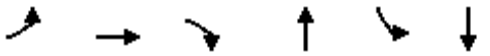
APPENDIX 3.4: EXISTING (2022) CONDITIONS OFF-RAMP QUEUEING ANALYSIS WORKSEHETS

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Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	313	307	285	320	755	1122	670
v/c Ratio	0.72	0.65	0.53	0.66	0.24	0.43	0.64
Control Delay	39.0	25.9	12.7	41.4	8.3	19.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	25.9	12.7	41.4	8.3	19.0	4.9
Queue Length 50th (ft)	161	109	37	86	65	126	0
Queue Length 95th (ft)	260	207	113	131	90	164	67
Internal Link Dist (ft)		1238			270	982	
Turn Bay Length (ft)	360		360	160			210
Base Capacity (vph)	550	578	628	597	3487	2896	1088
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.53	0.45	0.54	0.22	0.39	0.62

Intersection Summary



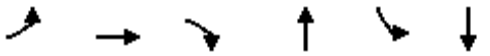
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	307	287	280	1302	506	1230
v/c Ratio	0.72	0.68	0.62	0.71	0.76	0.57
Control Delay	39.0	30.5	24.5	22.4	39.7	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.9
Total Delay	39.0	30.5	24.5	22.4	39.7	12.4
Queue Length 50th (ft)	154	115	88	183	131	189
Queue Length 95th (ft)	254	214	178	257	193	272
Internal Link Dist (ft)		1268		1816		270
Turn Bay Length (ft)			290			
Base Capacity (vph)	551	525	557	1967	822	2433
Starvation Cap Reductn	0	0	0	0	0	834
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.55	0.50	0.66	0.62	0.77

Intersection Summary



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	322	306	298	343	1386	926	407
v/c Ratio	0.67	0.61	0.60	0.62	0.49	0.43	0.51
Control Delay	32.0	22.1	21.5	36.4	11.4	21.2	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	32.0	22.1	21.5	36.4	11.6	21.2	5.0
Queue Length 50th (ft)	142	93	85	80	136	97	0
Queue Length 95th (ft)	250	195	181	137	206	150	63
Internal Link Dist (ft)		1238			270	982	
Turn Bay Length (ft)	360		360	160			210
Base Capacity (vph)	710	690	690	764	3589	2669	900
Starvation Cap Reductn	0	0	0	0	1095	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.44	0.43	0.45	0.56	0.35	0.45

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	371	360	337	1815	364	1005
v/c Ratio	0.84	0.76	0.70	0.82	0.83	0.46
Control Delay	49.7	33.5	27.6	23.9	55.5	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.5
Total Delay	49.7	33.5	27.6	23.9	55.5	12.0
Queue Length 50th (ft)	207	151	115	298	105	153
Queue Length 95th (ft)	#356	#273	218	365	#175	199
Internal Link Dist (ft)		1268		1816		270
Turn Bay Length (ft)			290			
Base Capacity (vph)	471	501	506	2207	453	2204
Starvation Cap Reductn	0	0	0	0	0	948
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.72	0.67	0.82	0.80	0.80

Intersection Summary

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

APPENDIX 5.1: EAP (2024) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↰	↱			↕			↕	
Traffic Vol, veh/h	4	109	3	6	98	13	0	0	0	5	0	0
Future Vol, veh/h	4	109	3	6	98	13	0	0	0	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	92	92	86	86	92	92	92	86	92	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	127	3	7	114	15	0	0	0	6	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	130	0	0	275	283	129	276	277	123
Stage 1	-	-	-	-	-	-	139	139	-	137	137	-
Stage 2	-	-	-	-	-	-	136	144	-	139	140	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1468	-	-	1468	-	-	681	629	926	680	634	933
Stage 1	-	-	-	-	-	-	869	785	-	871	787	-
Stage 2	-	-	-	-	-	-	872	782	-	869	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1467	-	-	1468	-	-	676	623	926	675	628	932
Mov Cap-2 Maneuver	-	-	-	-	-	-	676	623	-	675	628	-
Stage 1	-	-	-	-	-	-	866	782	-	867	782	-
Stage 2	-	-	-	-	-	-	868	777	-	866	782	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.4	0	10.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1467	-	-	1468	-	-	675
HCM Lane V/C Ratio	-	0.003	-	-	0.004	-	-	0.009
HCM Control Delay (s)	0	7.5	0	-	7.5	-	-	10.4
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	110	1	26	117	5	0	0	16	2	0	0
Future Vol, veh/h	3	110	1	26	117	5	0	0	16	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	92	92	85	85	92	92	92	85	92	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	129	1	28	138	6	0	0	17	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	145	0	0	130	0	0	335	339	130	344	336	142
Stage 1	-	-	-	-	-	-	138	138	-	198	198	-
Stage 2	-	-	-	-	-	-	197	201	-	146	138	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1450	-	-	1468	-	-	622	586	925	614	588	911
Stage 1	-	-	-	-	-	-	870	786	-	808	741	-
Stage 2	-	-	-	-	-	-	809	739	-	861	786	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1449	-	-	1468	-	-	611	573	925	592	574	910
Mov Cap-2 Maneuver	-	-	-	-	-	-	611	573	-	592	574	-
Stage 1	-	-	-	-	-	-	867	784	-	805	726	-
Stage 2	-	-	-	-	-	-	794	724	-	842	784	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.2	9	11.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	925	1449	-	-	1468	-	-	592
HCM Lane V/C Ratio	0.019	0.002	-	-	0.019	-	-	0.004
HCM Control Delay (s)	9	7.5	-	-	7.5	-	-	11.1
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	108	14	41	106	22	11	33	23	6	46	30
Future Vol, veh/h	8	108	14	41	106	22	11	33	23	6	46	30
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	133	17	51	131	27	14	41	28	7	57	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	159	0	0	150	0	0	456	423	142	444	418	146
Stage 1	-	-	-	-	-	-	162	162	-	248	248	-
Stage 2	-	-	-	-	-	-	294	261	-	196	170	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1433	-	-	1444	-	-	518	526	911	528	529	906
Stage 1	-	-	-	-	-	-	845	768	-	760	705	-
Stage 2	-	-	-	-	-	-	719	696	-	810	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1432	-	-	1444	-	-	438	501	911	463	504	905
Mov Cap-2 Maneuver	-	-	-	-	-	-	438	501	-	463	504	-
Stage 1	-	-	-	-	-	-	839	763	-	754	677	-
Stage 2	-	-	-	-	-	-	607	668	-	738	757	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	1.8	12.3	12.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	576	1432	-	-	1444	-	-	597
HCM Lane V/C Ratio	0.144	0.007	-	-	0.035	-	-	0.17
HCM Control Delay (s)	12.3	7.5	-	-	7.6	0	-	12.3
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.6

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	0	6	57	85	16
Future Vol, veh/h	11	0	6	57	85	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	0	7	62	92	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	177	101	109	0	-	0
Stage 1	101	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	817	960	1494	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	952	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	813	960	1494	-	-	-
Mov Cap-2 Maneuver	813	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	952	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1494	-	813	-	-
HCM Lane V/C Ratio	0.004	-	0.015	-	-
HCM Control Delay (s)	7.4	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	114	15	34	136	19	11	35	28	11	40	22
Future Vol, veh/h	7	114	15	34	136	19	11	35	28	11	40	22
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	134	18	40	160	22	13	41	33	13	47	26
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9	9.7	8.4	8.5
HCM LOS	A	A	A	A

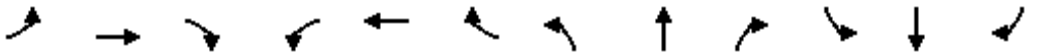
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	15%	6%	0%	20%	0%	15%
Vol Thru, %	47%	94%	0%	80%	0%	55%
Vol Right, %	38%	0%	100%	0%	100%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	121	15	170	19	73
LT Vol	11	7	0	34	0	11
Through Vol	35	114	0	136	0	40
RT Vol	28	0	15	0	19	22
Lane Flow Rate	87	142	18	200	22	86
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.115	0.204	0.022	0.287	0.027	0.115
Departure Headway (Hd)	4.754	5.152	4.418	5.164	4.359	4.801
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	751	695	807	694	818	744
Service Time	2.8	2.898	2.164	2.907	2.102	2.847
HCM Lane V/C Ratio	0.116	0.204	0.022	0.288	0.027	0.116
HCM Control Delay	8.4	9.2	7.3	10	7.2	8.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.8	0.1	1.2	0.1	0.4

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	544	0	358	329	739	1099	655
Future Volume (vph)	544	0	358	329	739	1099	655
Turn Type	Perm	NA	Perm	Prot	NA	NA	Perm
Protected Phases		8		5	2	6	
Permitted Phases	8		8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	9.6	23.2	16.2	16.2
Total Split (s)	31.0	31.0	31.0	18.0	59.0	41.0	41.0
Total Split (%)	34.4%	34.4%	34.4%	20.0%	65.6%	45.6%	45.6%
Yellow Time (s)	4.8	4.8	4.8	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	6.2	6.2	6.2
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 82.6
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Riverside Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	544	0	358	329	739	0	0	1099	655
Future Volume (veh/h)	0	0	0	544	0	358	329	739	0	0	1099	655
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				642	0	136	350	786	0	0	1169	503
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				814	0	362	448	3175	0	0	2758	679
Arrive On Green				0.22	0.00	0.22	0.13	0.61	0.00	0.00	0.42	0.42
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1610
Grp Volume(v), veh/h				642	0	136	350	786	0	0	1169	503
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1610
Q Serve(g_s), s				12.3	0.0	5.3	7.1	5.1	0.0	0.0	9.3	19.3
Cycle Q Clear(g_c), s				12.3	0.0	5.3	7.1	5.1	0.0	0.0	9.3	19.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				814	0	362	448	3175	0	0	2758	679
V/C Ratio(X)				0.79	0.00	0.38	0.78	0.25	0.00	0.00	0.42	0.74
Avail Cap(c_a), veh/h				1239	0	551	639	3720	0	0	3089	761
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				26.9	0.0	24.2	31.1	6.5	0.0	0.0	15.0	17.9
Incr Delay (d2), s/veh				2.0	0.0	0.6	2.4	0.1	0.0	0.0	0.1	3.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.1	0.0	1.9	3.0	1.4	0.0	0.0	3.0	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.9	0.0	24.8	33.5	6.6	0.0	0.0	15.1	21.8
LnGrp LOS				C	A	C	C	A	A	A	B	C
Approach Vol, veh/h					778			1136			1672	
Approach Delay, s/veh					28.2			14.9			17.1	
Approach LOS					C			B			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		51.3			14.0	37.3		22.4				
Change Period (Y+Rc), s		6.2			4.6	6.2		5.8				
Max Green Setting (Gmax), s		52.8			13.4	34.8		25.2				
Max Q Clear Time (g_c+I1), s		7.1			9.1	21.3		14.3				
Green Ext Time (p_c), s		8.8			0.3	9.7		2.3				

Intersection Summary		
HCM 6th Ctrl Delay	18.8	
HCM 6th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.

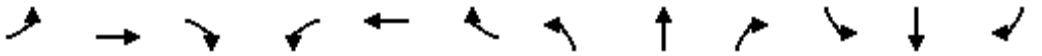
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	319	4	521	749	473	1170
Future Volume (vph)	319	4	521	749	473	1170
Turn Type	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		2	1	6
Permitted Phases	4		4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	15.8	15.8	15.8	23.2	9.6	16.2
Total Split (s)	31.0	31.0	31.0	36.0	23.0	59.0
Total Split (%)	34.4%	34.4%	34.4%	40.0%	25.6%	65.6%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	6.2	4.6	6.2
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 81.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Riverside Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	4	521	0	0	0	0	749	496	473	1170	0
Future Volume (veh/h)	319	4	521	0	0	0	0	749	496	473	1170	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	509	0	283				0	832	489	526	1300	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	807	0	359				0	1297	596	630	2224	0
Arrive On Green	0.22	0.00	0.22				0.00	0.37	0.37	0.18	0.62	0.00
Sat Flow, veh/h	3619	0	1610				0	3629	1589	3510	3705	0
Grp Volume(v), veh/h	509	0	283				0	832	489	526	1300	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1589	1755	1805	0
Q Serve(g_s), s	9.5	0.0	12.4				0.0	14.8	20.7	10.8	16.1	0.0
Cycle Q Clear(g_c), s	9.5	0.0	12.4				0.0	14.8	20.7	10.8	16.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	807	0	359				0	1297	596	630	2224	0
V/C Ratio(X)	0.63	0.00	0.79				0.00	0.64	0.82	0.83	0.58	0.00
Avail Cap(c_a), veh/h	1223	0	544				0	1382	635	867	2557	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	0.0	27.3				0.0	19.2	21.0	29.5	8.6	0.0
Incr Delay (d2), s/veh	0.8	0.0	4.4				0.0	1.1	8.5	3.8	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	4.8				0.0	5.4	8.2	4.5	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	31.7				0.0	20.3	29.6	33.3	8.9	0.0
LnGrp LOS	C	A	C				A	C	C	C	A	A
Approach Vol, veh/h		792						1321			1826	
Approach Delay, s/veh		28.7						23.7			16.0	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.0	34.2		22.4		52.1
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2
Max Green Setting (Gmax), s	18.4	29.8		25.2		52.8
Max Q Clear Time (g_c+I1), s	12.8	22.7		14.4		18.1
Green Ext Time (p_c), s	0.6	5.2		2.3		16.4

Intersection Summary		
HCM 6th Ctrl Delay		21.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

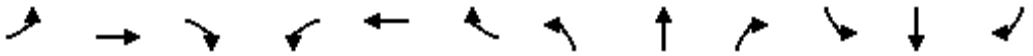
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	252	34	24	18	62	946	19	1278
Future Volume (vph)	252	34	24	18	62	946	19	1278
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	28.8	28.8	9.6	27.5	9.6	30.5
Total Split (s)	32.8	32.8	32.8	32.8	9.8	47.2	10.0	47.4
Total Split (%)	36.4%	36.4%	36.4%	36.4%	10.9%	52.4%	11.1%	52.7%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 82.6
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Riverside Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	34	55	24	18	48	62	946	26	19	1278	394
Future Volume (veh/h)	252	34	55	24	18	48	62	946	26	19	1278	394
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	286	39	43	27	20	38	70	1075	29	22	1452	340
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	410	460	405	400	460	409	90	1884	51	43	1457	332
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.52	0.52	0.02	0.50	0.50
Sat Flow, veh/h	1364	1805	1589	1337	1805	1606	1810	3589	97	1810	2920	665
Grp Volume(v), veh/h	286	39	43	27	20	38	70	541	563	22	882	910
Grp Sat Flow(s),veh/h/ln	1364	1805	1589	1337	1805	1606	1810	1805	1881	1810	1805	1780
Q Serve(g_s), s	16.7	1.4	1.7	1.3	0.7	1.5	3.2	16.8	16.8	1.0	39.5	41.2
Cycle Q Clear(g_c), s	18.2	1.4	1.7	3.0	0.7	1.5	3.2	16.8	16.8	1.0	39.5	41.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.37
Lane Grp Cap(c), veh/h	410	460	405	400	460	409	90	948	988	43	901	888
V/C Ratio(X)	0.70	0.08	0.11	0.07	0.04	0.09	0.77	0.57	0.57	0.51	0.98	1.02
Avail Cap(c_a), veh/h	515	599	528	503	599	533	114	948	988	118	901	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	23.4	23.6	24.7	23.2	23.5	38.8	13.3	13.3	39.8	20.2	20.7
Incr Delay (d2), s/veh	3.0	0.1	0.1	0.1	0.0	0.1	17.0	1.0	1.0	3.4	24.8	36.6
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	5.5	0.6	0.6	0.4	0.3	0.5	1.7	5.6	5.8	0.4	19.1	22.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	23.5	23.7	24.8	23.2	23.6	55.8	14.3	14.3	43.2	45.1	57.3
LnGrp LOS	C	C	C	C	C	C	E	B	B	D	D	F
Approach Vol, veh/h		368			85			1174			1814	
Approach Delay, s/veh		31.2			23.9			16.8			51.2	
Approach LOS		C			C			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	49.5		26.4	8.7	47.4		26.4				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		5.4				
Max Green Setting (Gmax), s	5.4	41.0		27.4	5.2	41.2		27.4				
Max Q Clear Time (g_c+I1), s	3.0	18.8		20.2	5.2	43.2		5.0				
Green Ext Time (p_c), s	0.0	9.3		0.8	0.0	0.0		0.3				

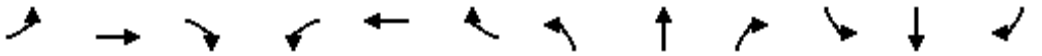
Intersection Summary			
HCM 6th Ctrl Delay		36.6	
HCM 6th LOS		D	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	115	1	55	9	73	50	802	63	1092
Future Volume (vph)	115	1	55	9	73	50	802	63	1092
Turn Type	Perm	NA	Perm	NA	Perm	Prot	NA	Prot	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	28.4	28.4	26.4	26.4	26.4	9.6	26.5	9.6	27.5
Total Split (s)	28.6	28.6	28.6	28.6	28.6	11.6	47.6	13.8	49.8
Total Split (%)	31.8%	31.8%	31.8%	31.8%	31.8%	12.9%	52.9%	15.3%	55.3%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	3.6	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	4.6	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 65.3
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Riverside Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	1	38	55	9	73	50	802	56	63	1092	130
Future Volume (veh/h)	115	1	38	55	9	73	50	802	56	63	1092	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	129	1	32	62	10	75	56	901	61	71	1227	143
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	339	8	252	316	305	258	90	1771	120	103	1707	198
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.05	0.52	0.52	0.06	0.52	0.52
Sat Flow, veh/h	1427	49	1569	1398	1900	1610	1810	3426	232	1810	3258	378
Grp Volume(v), veh/h	129	0	33	62	10	75	56	475	487	71	678	692
Grp Sat Flow(s),veh/h/ln	1427	0	1618	1398	1900	1610	1810	1805	1852	1810	1805	1832
Q Serve(g_s), s	5.2	0.0	1.1	2.5	0.3	2.5	1.9	10.7	10.7	2.4	17.8	17.9
Cycle Q Clear(g_c), s	5.5	0.0	1.1	3.6	0.3	2.5	1.9	10.7	10.7	2.4	17.8	17.9
Prop In Lane	1.00		0.97	1.00		1.00	1.00		0.13	1.00		0.21
Lane Grp Cap(c), veh/h	339	0	259	316	305	258	90	933	957	103	946	960
V/C Ratio(X)	0.38	0.00	0.13	0.20	0.03	0.29	0.62	0.51	0.51	0.69	0.72	0.72
Avail Cap(c_a), veh/h	643	0	605	614	710	602	204	1195	1227	268	1259	1278
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	22.3	23.9	22.0	22.9	28.9	9.8	9.8	28.7	11.3	11.3
Incr Delay (d2), s/veh	0.7	0.0	0.2	0.3	0.0	0.6	2.6	0.6	0.6	3.1	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.4	0.8	0.1	0.9	0.8	2.9	3.0	1.0	5.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	0.0	22.5	24.2	22.0	23.6	31.5	10.4	10.4	31.8	13.0	13.1
LnGrp LOS	C	A	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		162			147			1018			1441	
Approach Delay, s/veh		24.5			23.7			11.6			13.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	38.6		15.4	7.7	39.0		15.4				
Change Period (Y+Rc), s	4.6	6.5		5.4	4.6	6.5		5.4				
Max Green Setting (Gmax), s	9.2	41.1		23.2	7.0	43.3		23.2				
Max Q Clear Time (g_c+I1), s	4.4	12.7		7.5	3.9	19.9		5.6				
Green Ext Time (p_c), s	0.0	8.6		0.4	0.0	12.6		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		14.2	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↰	↑			↕			↕	
Traffic Vol, veh/h	0	167	0	1	113	6	3	0	6	3	0	5
Future Vol, veh/h	0	167	0	1	113	6	3	0	6	3	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	92	92	95	95	92	92	92	95	92	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	176	0	1	119	6	3	0	7	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	125	0	0	176	0	0	303	303	176	304	300	122
Stage 1	-	-	-	-	-	-	176	176	-	124	124	-
Stage 2	-	-	-	-	-	-	127	127	-	180	176	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1474	-	-	1412	-	-	653	613	872	652	616	935
Stage 1	-	-	-	-	-	-	831	757	-	885	797	-
Stage 2	-	-	-	-	-	-	882	795	-	826	757	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1474	-	-	1412	-	-	649	612	872	647	615	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	649	612	-	647	615	-
Stage 1	-	-	-	-	-	-	831	757	-	885	796	-
Stage 2	-	-	-	-	-	-	876	794	-	820	757	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	9.7	9.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	782	1474	-	-	1412	-	-	801
HCM Lane V/C Ratio	0.013	-	-	-	0.001	-	-	0.011
HCM Control Delay (s)	9.7	0	-	-	7.6	-	-	9.5
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	175	0	19	118	0	1	0	25	7	0	2
Future Vol, veh/h	1	175	0	19	118	0	1	0	25	7	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	92	92	93	93	92	92	92	93	92	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	188	0	21	127	0	1	0	27	8	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	188	0	0	360	359	188	373	359	127
Stage 1	-	-	-	-	-	-	190	190	-	169	169	-
Stage 2	-	-	-	-	-	-	170	169	-	204	190	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1472	-	-	1398	-	-	599	571	859	588	571	929
Stage 1	-	-	-	-	-	-	816	747	-	838	763	-
Stage 2	-	-	-	-	-	-	837	763	-	803	747	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1472	-	-	1398	-	-	591	562	859	563	562	929
Mov Cap-2 Maneuver	-	-	-	-	-	-	591	562	-	563	562	-
Stage 1	-	-	-	-	-	-	815	746	-	837	752	-
Stage 2	-	-	-	-	-	-	823	752	-	777	746	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	9.4	10.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	844	1472	-	-	1398	-	-	617
HCM Lane V/C Ratio	0.033	0.001	-	-	0.015	-	-	0.016
HCM Control Delay (s)	9.4	7.4	-	-	7.6	-	-	10.9
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	171	12	22	106	18	11	53	25	22	28	19
Future Vol, veh/h	23	171	12	22	106	18	11	53	25	22	28	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	186	13	24	115	20	12	58	27	24	30	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	135	0	0	199	0	0	442	426	193	458	422	125
Stage 1	-	-	-	-	-	-	243	243	-	173	173	-
Stage 2	-	-	-	-	-	-	199	183	-	285	249	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1462	-	-	1385	-	-	529	524	854	516	526	931
Stage 1	-	-	-	-	-	-	765	708	-	834	760	-
Stage 2	-	-	-	-	-	-	807	752	-	727	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1462	-	-	1385	-	-	480	505	854	444	507	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	480	505	-	444	507	-
Stage 1	-	-	-	-	-	-	752	696	-	820	746	-
Stage 2	-	-	-	-	-	-	743	738	-	635	692	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.2	12.7	12.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	566	1462	-	-	1385	-	-	551
HCM Lane V/C Ratio	0.171	0.017	-	-	0.017	-	-	0.136
HCM Control Delay (s)	12.7	7.5	-	-	7.6	0	-	12.6
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	6	1	75	49	13
Future Vol, veh/h	15	6	1	75	49	13
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, %	0	0	0	0	0	0
Mvmt Flow	16	7	1	82	53	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	144	60	67	0	-	0
Stage 1	60	-	-	-	-	-
Stage 2	84	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	853	1011	1547	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	944	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	852	1011	1547	-	-	-
Mov Cap-2 Maneuver	852	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	944	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1547	-	892	-	-
HCM Lane V/C Ratio	0.001	-	0.026	-	-
HCM Control Delay (s)	7.3	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	184	22	27	125	30	6	48	35	9	58	15
Future Vol, veh/h	12	184	22	27	125	30	6	48	35	9	58	15
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	198	24	29	134	32	6	52	38	10	62	16
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

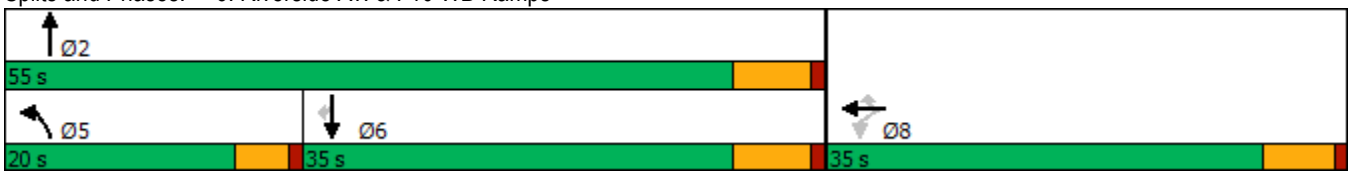
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.9	9.3	8.6	8.7
HCM LOS	A	A	A	A

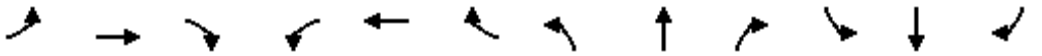
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	7%	6%	0%	18%	0%	11%
Vol Thru, %	54%	94%	0%	82%	0%	71%
Vol Right, %	39%	0%	100%	0%	100%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	89	196	22	152	30	82
LT Vol	6	12	0	27	0	9
Through Vol	48	184	0	125	0	58
RT Vol	35	0	22	0	30	15
Lane Flow Rate	96	211	24	163	32	88
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.129	0.302	0.029	0.239	0.04	0.122
Departure Headway (Hd)	4.846	5.167	4.432	5.262	4.468	4.988
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	737	693	803	680	797	715
Service Time	2.898	2.92	2.184	3.016	2.221	3.042
HCM Lane V/C Ratio	0.13	0.304	0.03	0.24	0.04	0.123
HCM Control Delay	8.6	10.2	7.3	9.7	7.4	8.7
HCM Lane LOS	A	B	A	A	A	A
HCM 95th-tile Q	0.4	1.3	0.1	0.9	0.1	0.4

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	445	0	501	371	1399	934	411
Future Volume (vph)	445	0	501	371	1399	934	411
Turn Type	Perm	NA	Perm	Prot	NA	NA	Perm
Protected Phases		8		5	2	6	
Permitted Phases	8		8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	9.6	23.2	16.2	16.2
Total Split (s)	35.0	35.0	35.0	20.0	55.0	35.0	35.0
Total Split (%)	38.9%	38.9%	38.9%	22.2%	61.1%	38.9%	38.9%
Yellow Time (s)	4.8	4.8	4.8	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	6.2	6.2	6.2
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 76.9
Natural Cycle: 45
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Riverside Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	445	0	501	371	1399	0	0	934	411
Future Volume (veh/h)	0	0	0	445	0	501	371	1399	0	0	934	411
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				585	0	270	382	1442	0	0	963	275
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				860	0	383	512	2898	0	0	2188	539
Arrive On Green				0.24	0.00	0.24	0.15	0.56	0.00	0.00	0.33	0.33
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1610
Grp Volume(v), veh/h				585	0	270	382	1442	0	0	963	275
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1610
Q Serve(g_s), s				8.7	0.0	9.0	6.1	10.0	0.0	0.0	6.8	8.1
Cycle Q Clear(g_c), s				8.7	0.0	9.0	6.1	10.0	0.0	0.0	6.8	8.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				860	0	383	512	2898	0	0	2188	539
V/C Ratio(X)				0.68	0.00	0.71	0.75	0.50	0.00	0.00	0.44	0.51
Avail Cap(c_a), veh/h				1794	0	798	918	4298	0	0	3196	787
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.4	0.0	20.6	24.1	7.9	0.0	0.0	15.3	15.7
Incr Delay (d2), s/veh				1.0	0.0	2.4	0.8	0.2	0.0	0.0	0.2	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.3	0.0	3.2	2.3	2.6	0.0	0.0	2.2	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				21.4	0.0	23.0	24.9	8.1	0.0	0.0	15.5	16.8
LnGrp LOS				C	A	C	C	A	A	A	B	B
Approach Vol, veh/h					855			1824			1238	
Approach Delay, s/veh					21.9			11.7			15.8	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	39.1		13.2	25.9		19.8						
Change Period (Y+Rc), s	6.2		4.6	6.2		5.8						
Max Green Setting (Gmax), s	48.8		15.4	28.8		29.2						
Max Q Clear Time (g_c+I1), s	12.0		8.1	10.1		11.0						
Green Ext Time (p_c), s	18.4		0.5	9.6		2.9						

Intersection Summary		
HCM 6th Ctrl Delay	15.2	
HCM 6th LOS	B	

Notes

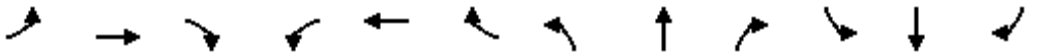
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	579	0	506	1193	363	1016
Future Volume (vph)	579	0	506	1193	363	1016
Turn Type	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		2	1	6
Permitted Phases	4		4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	15.8	15.8	15.8	23.2	9.6	16.2
Total Split (s)	30.0	30.0	30.0	44.0	16.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	48.9%	17.8%	66.7%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	6.2	4.6	6.2
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 88.7
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Riverside Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	579	0	506	0	0	0	0	1193	663	363	1016	0
Future Volume (veh/h)	579	0	506	0	0	0	0	1193	663	363	1016	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	718	0	246				0	1243	620	378	1058	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	857	0	381				0	1515	705	454	2244	0
Arrive On Green	0.24	0.00	0.24				0.00	0.44	0.44	0.13	0.62	0.00
Sat Flow, veh/h	3619	0	1610				0	3629	1609	3510	3705	0
Grp Volume(v), veh/h	718	0	246				0	1243	620	378	1058	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1609	1755	1805	0
Q Serve(g_s), s	16.0	0.0	11.7				0.0	26.7	29.9	8.9	13.3	0.0
Cycle Q Clear(g_c), s	16.0	0.0	11.7				0.0	26.7	29.9	8.9	13.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	857	0	381				0	1515	705	454	2244	0
V/C Ratio(X)	0.84	0.00	0.65				0.00	0.82	0.88	0.83	0.47	0.00
Avail Cap(c_a), veh/h	1033	0	459				0	1541	717	472	2290	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.8	0.0	29.2				0.0	20.9	21.8	36.0	8.6	0.0
Incr Delay (d2), s/veh	5.3	0.0	2.3				0.0	3.8	12.3	11.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	4.5				0.0	10.4	12.4	4.3	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	0.0	31.5				0.0	24.7	34.1	47.0	8.8	0.0
LnGrp LOS	D	A	C				A	C	C	D	A	A
Approach Vol, veh/h		964						1863			1436	
Approach Delay, s/veh		34.9						27.8			18.9	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.6	43.4		25.9		58.9						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	11.4	37.8		24.2		53.8						
Max Q Clear Time (g_c+I1), s	10.9	31.9		18.0		15.3						
Green Ext Time (p_c), s	0.0	5.3		2.1		12.9						

Intersection Summary												
HCM 6th Ctrl Delay			26.4									
HCM 6th LOS			C									

Notes

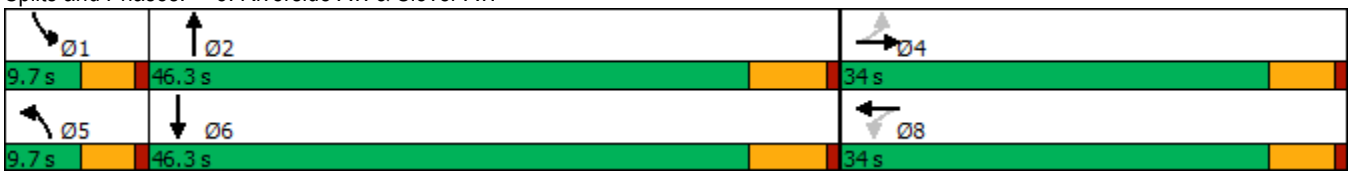
User approved volume balancing among the lanes for turning movement.

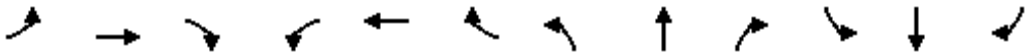
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	371	131	36	29	44	1400	33	1170
Future Volume (vph)	371	131	36	29	44	1400	33	1170
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	28.8	28.8	9.6	27.5	9.6	30.5
Total Split (s)	34.0	34.0	34.0	34.0	9.7	46.3	9.7	46.3
Total Split (%)	37.8%	37.8%	37.8%	37.8%	10.8%	51.4%	10.8%	51.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 84.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Riverside Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	371	131	135	36	29	84	44	1400	6	33	1170	319
Future Volume (veh/h)	371	131	135	36	29	84	44	1400	6	33	1170	319
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	379	134	105	37	30	66	45	1429	6	34	1194	325
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	473	647	470	396	586	523	69	1693	7	58	1272	341
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.04	0.46	0.46	0.03	0.45	0.45
Sat Flow, veh/h	1320	1991	1447	1157	1805	1610	1810	3687	15	1810	2806	752
Grp Volume(v), veh/h	379	121	118	37	30	66	45	700	735	34	761	758
Grp Sat Flow(s),veh/h/ln	1320	1805	1633	1157	1805	1610	1810	1805	1897	1810	1805	1753
Q Serve(g_s), s	25.0	4.3	4.7	2.1	1.0	2.5	2.2	30.1	30.2	1.6	35.1	36.6
Cycle Q Clear(g_c), s	27.5	4.3	4.7	6.8	1.0	2.5	2.2	30.1	30.2	1.6	35.1	36.6
Prop In Lane	1.00		0.89	1.00		1.00	1.00		0.01	1.00		0.43
Lane Grp Cap(c), veh/h	473	586	531	396	586	523	69	829	871	58	818	795
V/C Ratio(X)	0.80	0.21	0.22	0.09	0.05	0.13	0.66	0.84	0.84	0.59	0.93	0.95
Avail Cap(c_a), veh/h	473	586	531	396	586	523	105	829	871	105	822	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	21.5	21.6	24.1	20.4	20.9	41.8	21.0	21.0	42.0	22.8	23.2
Incr Delay (d2), s/veh	9.6	0.2	0.2	0.1	0.0	0.1	3.9	8.3	7.9	3.5	17.1	21.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	1.7	1.7	0.6	0.4	0.9	1.0	12.4	13.0	0.7	16.2	17.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	21.7	21.8	24.2	20.4	21.0	45.7	29.3	28.9	45.5	39.8	44.5
LnGrp LOS	D	C	C	C	C	C	D	C	C	D	D	D
Approach Vol, veh/h		618			133			1480			1553	
Approach Delay, s/veh		33.1			21.8			29.6			42.3	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	46.6		34.0	7.9	46.1		34.0				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		5.4				
Max Green Setting (Gmax), s	5.1	40.1		28.6	5.1	40.1		28.6				
Max Q Clear Time (g_c+I1), s	3.6	32.2		29.5	4.2	38.6		8.8				
Green Ext Time (p_c), s	0.0	5.9		0.0	0.0	1.3		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		35.1	
HCM 6th LOS		D	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	142	25	49	20	91	66	1191	55	1200
Future Volume (vph)	142	25	49	20	91	66	1191	55	1200
Turn Type	Perm	NA	Perm	NA	Perm	Prot	NA	Prot	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	28.4	28.4	26.4	26.4	26.4	9.6	26.5	9.6	27.5
Total Split (s)	28.6	28.6	28.6	28.6	28.6	12.0	49.4	12.0	49.4
Total Split (%)	31.8%	31.8%	31.8%	31.8%	31.8%	13.3%	54.9%	13.3%	54.9%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	3.6	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	4.6	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 71.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Riverside Av. & Santa Ana Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	25	61	49	20	91	66	1191	46	55	1200	95
Future Volume (veh/h)	142	25	61	49	20	91	66	1191	46	55	1200	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	151	27	37	52	21	70	70	1267	49	59	1277	97
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	329	117	160	289	305	259	102	1860	72	93	1765	134
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.06	0.52	0.52	0.05	0.52	0.52
Sat Flow, veh/h	1413	725	994	1357	1900	1610	1810	3543	137	1810	3395	257
Grp Volume(v), veh/h	151	0	64	52	21	70	70	645	671	59	677	697
Grp Sat Flow(s),veh/h/ln	1413	0	1719	1357	1900	1610	1810	1805	1875	1810	1805	1847
Q Serve(g_s), s	6.4	0.0	2.0	2.2	0.6	2.4	2.4	16.6	16.6	2.0	18.1	18.2
Cycle Q Clear(g_c), s	7.0	0.0	2.0	4.2	0.6	2.4	2.4	16.6	16.6	2.0	18.1	18.2
Prop In Lane	1.00		0.58	1.00		1.00	1.00		0.07	1.00		0.14
Lane Grp Cap(c), veh/h	329	0	276	289	305	259	102	947	984	93	938	960
V/C Ratio(X)	0.46	0.00	0.23	0.18	0.07	0.27	0.69	0.68	0.68	0.64	0.72	0.73
Avail Cap(c_a), veh/h	625	0	636	573	703	596	214	1235	1283	214	1235	1264
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	0.0	22.9	24.8	22.3	23.1	29.0	11.0	11.0	29.2	11.6	11.6
Incr Delay (d2), s/veh	1.0	0.0	0.4	0.3	0.1	0.6	3.1	1.4	1.3	2.7	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.8	0.7	0.2	0.9	1.0	4.6	4.8	0.8	5.2	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	23.4	25.1	22.4	23.6	32.1	12.4	12.3	31.9	13.4	13.4
LnGrp LOS	C	A	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		215			143			1386			1433	
Approach Delay, s/veh		25.4			24.0			13.4			14.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	39.4		15.5	8.1	39.1		15.5				
Change Period (Y+Rc), s	4.6	6.5		5.4	4.6	6.5		5.4				
Max Green Setting (Gmax), s	7.4	42.9		23.2	7.4	42.9		23.2				
Max Q Clear Time (g_c+I1), s	4.0	18.6		9.0	4.4	20.2		6.2				
Green Ext Time (p_c), s	0.0	12.1		0.6	0.0	12.4		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		15.0	
HCM 6th LOS		B	

APPENDIX 5.2: EAP (2024) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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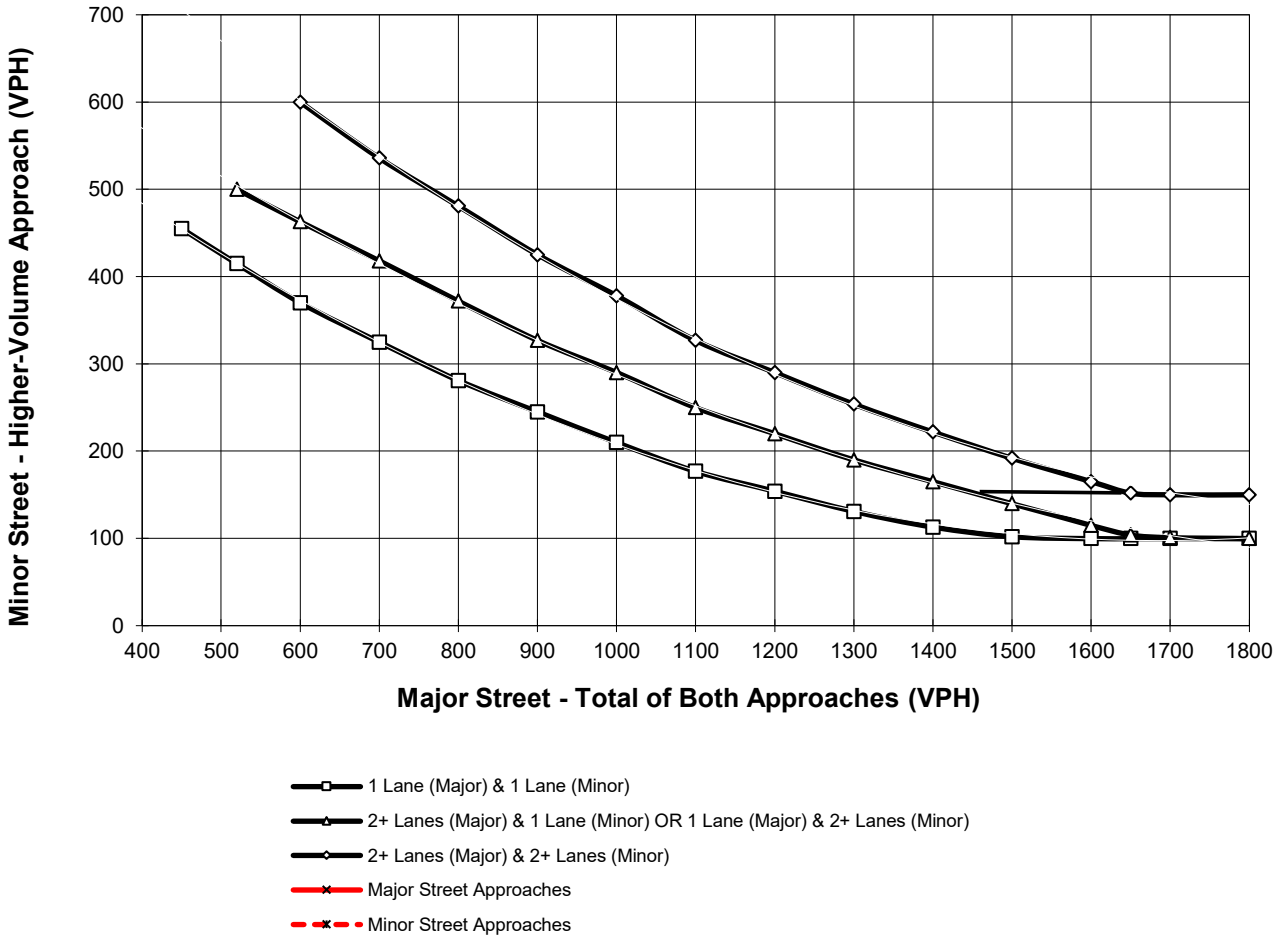
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2024) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **287**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 1**
High Volume Approach (VPH) = **9**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

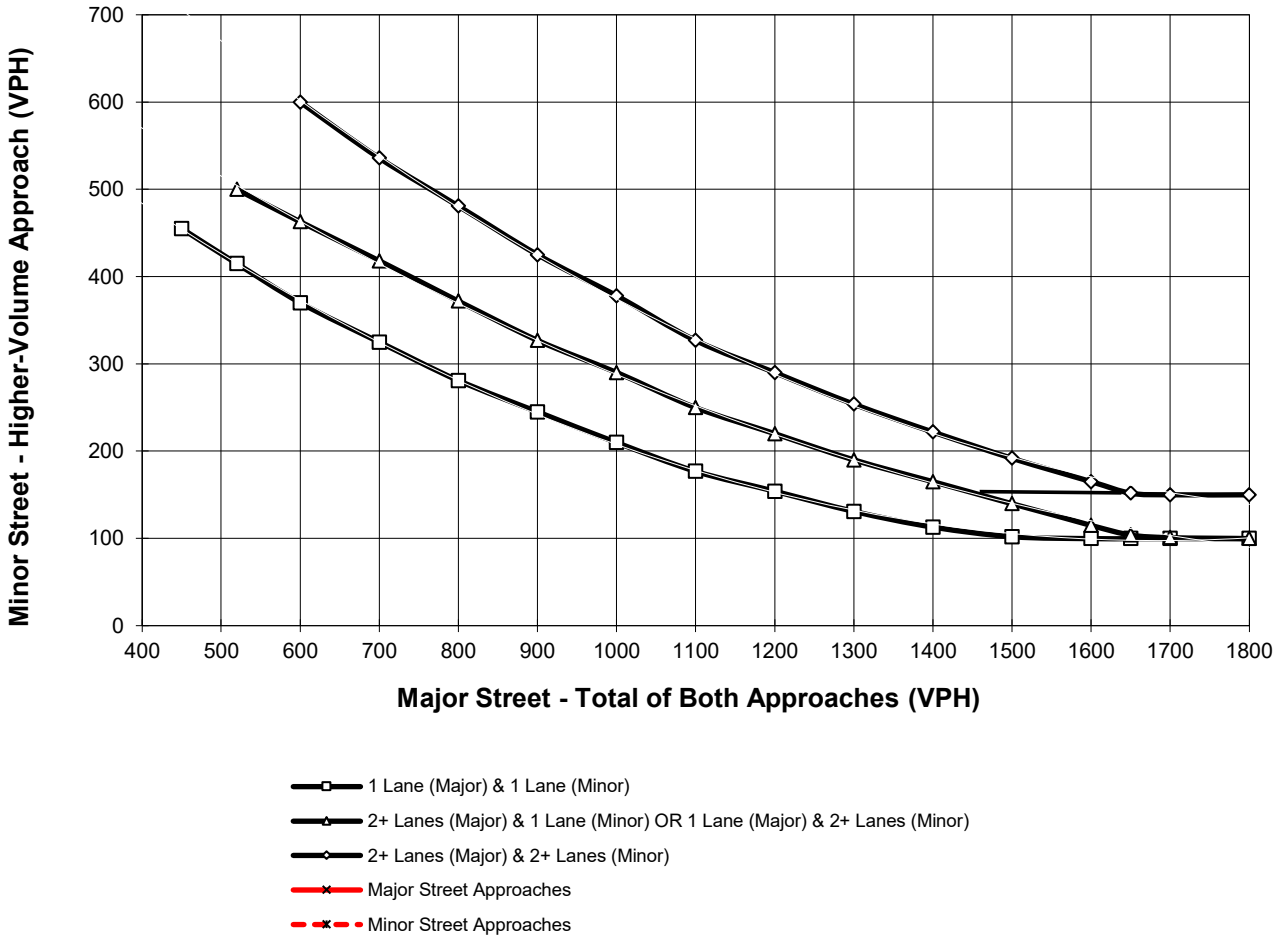
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2024) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **313**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**
High Volume Approach (VPH) = **26**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

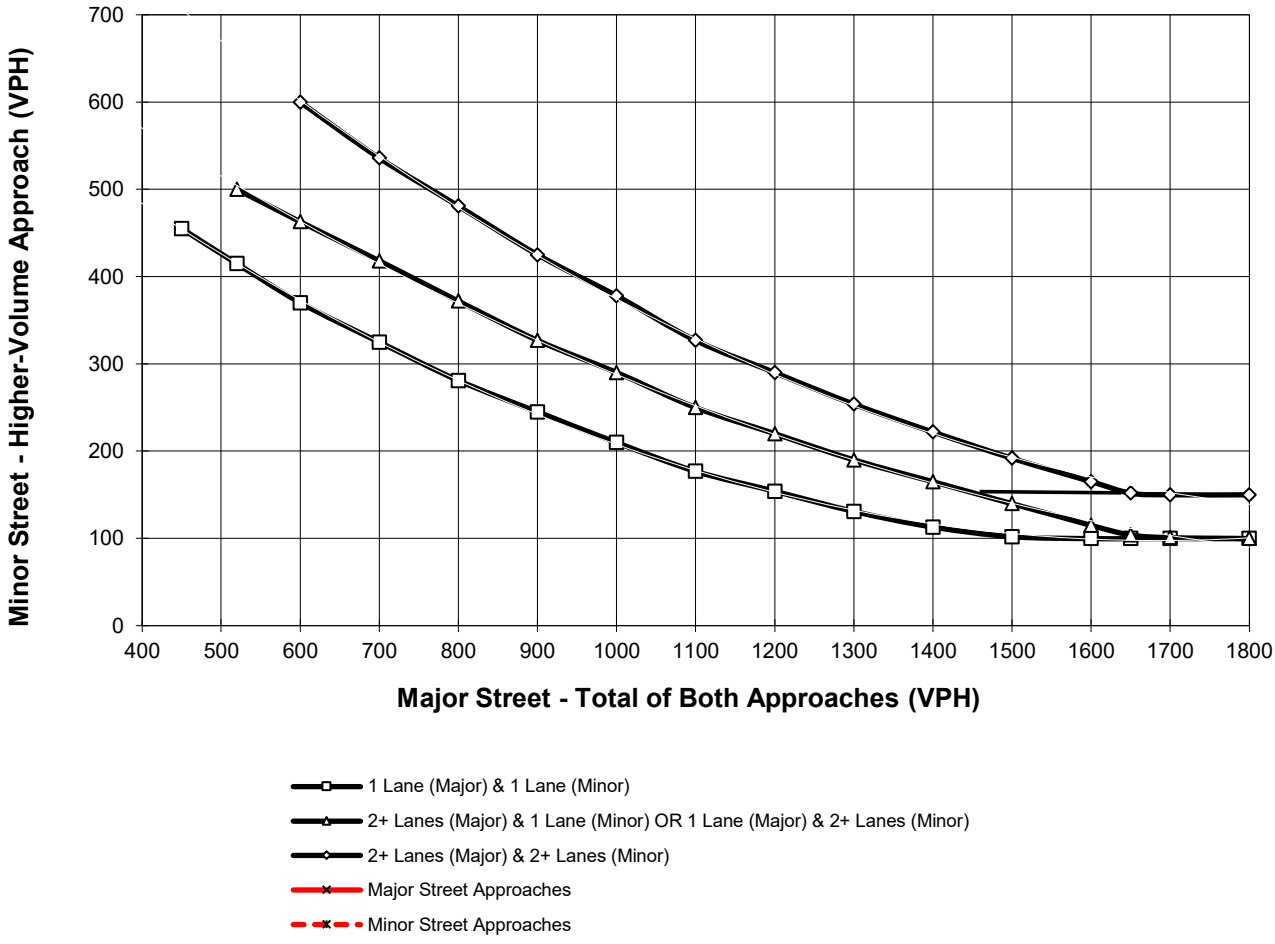
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2024) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **352**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Lilac Av.**
High Volume Approach (VPH) = **89**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		EAP (2024)
				CALC CS	DATE	04/12/23
Jurisdiction: City of Rialto				CHK CS	DATE	04/12/23
Major Street: Lilac Avenue				Critical Approach Speed (Major)		35 mph
Minor Street: Driveway 3				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,602** vpd Minor Street Future ADT = **96** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,602**	*1* **96**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,602**	*1* **96**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 4% **B** 8%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

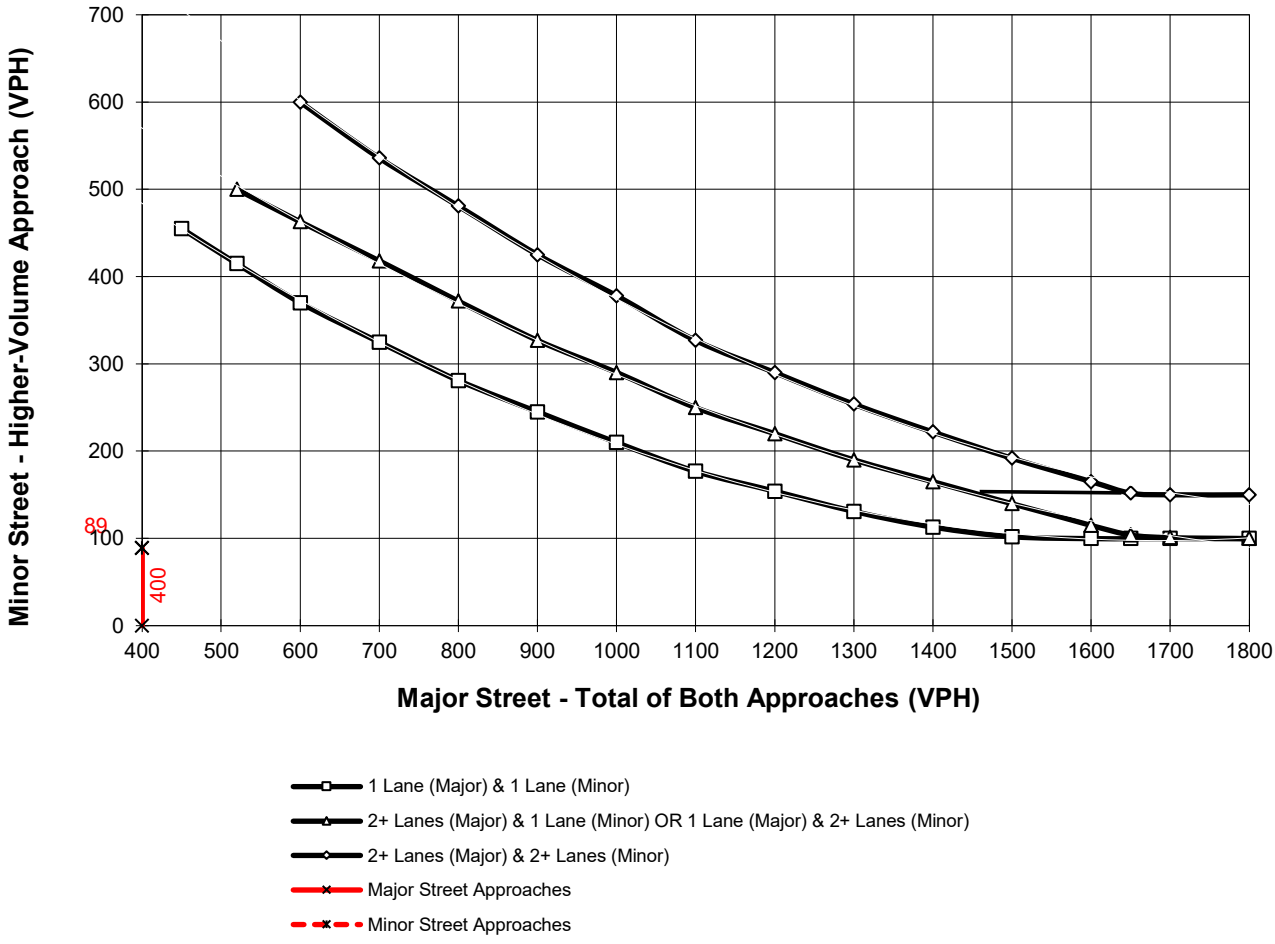
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2024) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **400**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Willow Av.**
High Volume Approach (VPH) = **89**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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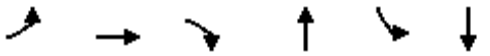
APPENDIX 5.3: EAP (2024) CONDITIONS OFF-RAMP QUEUEING ANALYSIS WORKSEHETS

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Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	330	329	301	350	786	1169	697
v/c Ratio	0.76	0.69	0.57	0.70	0.25	0.45	0.66
Control Delay	41.2	28.1	15.4	43.3	8.5	19.5	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	28.1	15.4	43.3	8.5	19.5	5.0
Queue Length 50th (ft)	174	126	52	97	71	138	0
Queue Length 95th (ft)	275	228	136	144	94	172	70
Internal Link Dist (ft)		1238			270	982	
Turn Bay Length (ft)	360		360	160			210
Base Capacity (vph)	534	565	606	579	3384	2810	1091
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.58	0.50	0.60	0.23	0.42	0.64

Intersection Summary



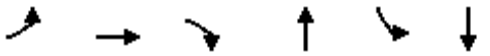
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	319	311	307	1383	526	1300
v/c Ratio	0.74	0.74	0.67	0.76	0.78	0.60
Control Delay	39.8	35.3	27.1	24.2	41.3	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.4
Total Delay	39.8	35.3	27.1	24.2	41.3	13.7
Queue Length 50th (ft)	165	138	106	212	141	220
Queue Length 95th (ft)	266	245	202	282	201	295
Internal Link Dist (ft)		1268		1816		270
Turn Bay Length (ft)			290			
Base Capacity (vph)	538	506	546	1922	801	2372
Starvation Cap Reductn	0	0	0	0	0	806
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.61	0.56	0.72	0.66	0.83

Intersection Summary



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	340	325	310	382	1442	963	424
v/c Ratio	0.69	0.64	0.61	0.67	0.50	0.45	0.52
Control Delay	33.3	23.6	22.4	38.5	12.0	22.1	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	33.3	23.6	22.4	38.5	12.2	22.1	5.1
Queue Length 50th (ft)	162	110	97	95	150	108	0
Queue Length 95th (ft)	266	213	190	152	217	156	63
Internal Link Dist (ft)		1238			270	982	
Turn Bay Length (ft)	360		360	160			210
Base Capacity (vph)	676	663	662	728	3419	2543	887
Starvation Cap Reductn	0	0	0	0	1130	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.49	0.47	0.52	0.63	0.38	0.48

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	392	380	358	1934	378	1058
v/c Ratio	0.88	0.79	0.75	0.88	0.86	0.48
Control Delay	54.0	36.5	32.4	27.3	58.1	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.9
Total Delay	54.0	36.5	32.4	27.3	58.1	12.9
Queue Length 50th (ft)	222	165	138	334	110	165
Queue Length 95th (ft)	#386	#319	#271	406	#185	212
Internal Link Dist (ft)		1268		1816		270
Turn Bay Length (ft)			290			
Base Capacity (vph)	468	497	494	2192	450	2190
Starvation Cap Reductn	0	0	0	0	0	928
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.76	0.72	0.88	0.84	0.84

Intersection Summary

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

APPENDIX 6.1: EAPC (2024) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↰	↑			↕			↕	
Traffic Vol, veh/h	4	115	3	6	100	13	0	0	0	5	0	0
Future Vol, veh/h	4	115	3	6	100	13	0	0	0	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	92	92	86	86	92	92	92	86	92	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	134	3	7	116	15	0	0	0	6	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	132	0	0	137	0	0	284	292	136	285	286	125
Stage 1	-	-	-	-	-	-	146	146	-	139	139	-
Stage 2	-	-	-	-	-	-	138	146	-	146	147	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1466	-	-	1459	-	-	672	622	918	671	627	931
Stage 1	-	-	-	-	-	-	861	780	-	869	785	-
Stage 2	-	-	-	-	-	-	870	780	-	861	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1459	-	-	667	616	918	666	621	930
Mov Cap-2 Maneuver	-	-	-	-	-	-	667	616	-	666	621	-
Stage 1	-	-	-	-	-	-	858	777	-	865	780	-
Stage 2	-	-	-	-	-	-	866	775	-	858	776	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.4	0	10.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1465	-	-	1459	-	-	666
HCM Lane V/C Ratio	-	0.003	-	-	0.004	-	-	0.009
HCM Control Delay (s)	0	7.5	0	-	7.5	-	-	10.5
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	116	1	26	119	5	0	43	16	2	37	0
Future Vol, veh/h	3	116	1	26	119	5	0	43	16	2	37	0
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	92	92	85	85	92	92	92	85	92	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	136	1	28	140	6	0	47	17	2	40	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	147	0	0	137	0	0	364	348	137	377	345	144
Stage 1	-	-	-	-	-	-	145	145	-	200	200	-
Stage 2	-	-	-	-	-	-	219	203	-	177	145	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1447	-	-	1459	-	-	596	579	917	584	581	909
Stage 1	-	-	-	-	-	-	863	781	-	806	739	-
Stage 2	-	-	-	-	-	-	788	737	-	829	781	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1446	-	-	1459	-	-	554	566	917	527	568	908
Mov Cap-2 Maneuver	-	-	-	-	-	-	554	566	-	527	568	-
Stage 1	-	-	-	-	-	-	860	779	-	803	724	-
Stage 2	-	-	-	-	-	-	730	722	-	762	779	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.2	11.3	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	632	1446	-	-	1459	-	-	566
HCM Lane V/C Ratio	0.101	0.002	-	-	0.019	-	-	0.075
HCM Control Delay (s)	11.3	7.5	-	-	7.5	-	-	11.9
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	108	20	80	106	22	13	76	36	6	83	30
Future Vol, veh/h	8	108	20	80	106	22	13	76	36	6	83	30
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	133	25	99	131	27	16	94	44	7	102	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	159	0	0	158	0	0	578	523	146	579	522	146
Stage 1	-	-	-	-	-	-	166	166	-	344	344	-
Stage 2	-	-	-	-	-	-	412	357	-	235	178	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1433	-	-	1434	-	-	430	462	906	429	462	906
Stage 1	-	-	-	-	-	-	841	765	-	676	640	-
Stage 2	-	-	-	-	-	-	621	632	-	773	756	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1432	-	-	1434	-	-	315	424	906	317	424	905
Mov Cap-2 Maneuver	-	-	-	-	-	-	315	424	-	317	424	-
Stage 1	-	-	-	-	-	-	835	760	-	671	591	-
Stage 2	-	-	-	-	-	-	455	583	-	640	751	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	3	16	15.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	480	1432	-	-	1434	-	-	480
HCM Lane V/C Ratio	0.322	0.007	-	-	0.069	-	-	0.306
HCM Control Delay (s)	16	7.5	-	-	7.7	0	-	15.8
HCM Lane LOS	C	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	1.4	0	-	-	0.2	-	-	1.3

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	0	6	115	167	16
Future Vol, veh/h	11	0	6	115	167	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	0	7	125	182	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	330	191	199	0	-	0
Stage 1	191	-	-	-	-	-
Stage 2	139	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	669	856	1385	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	666	856	1385	-	-	-
Mov Cap-2 Maneuver	666	-	-	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1385	-	666	-	-
HCM Lane V/C Ratio	0.005	-	0.018	-	-
HCM Control Delay (s)	7.6	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	127	15	34	175	19	11	78	28	11	59	22
Future Vol, veh/h	7	127	15	34	175	19	11	78	28	11	59	22
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	149	18	40	206	22	13	92	33	13	69	26
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.7	11	9.3	9.1
HCM LOS	A	B	A	A

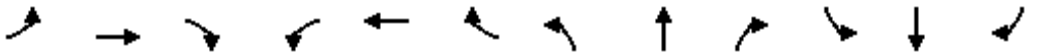
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	9%	5%	0%	16%	0%	12%
Vol Thru, %	67%	95%	0%	84%	0%	64%
Vol Right, %	24%	0%	100%	0%	100%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	117	134	15	209	19	92
LT Vol	11	7	0	34	0	11
Through Vol	78	127	0	175	0	59
RT Vol	28	0	15	0	19	22
Lane Flow Rate	138	158	18	246	22	108
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.193	0.238	0.023	0.367	0.029	0.153
Departure Headway (Hd)	5.048	5.424	4.691	5.379	4.591	5.097
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	705	656	755	664	772	697
Service Time	3.126	3.206	2.473	3.155	2.366	3.18
HCM Lane V/C Ratio	0.196	0.241	0.024	0.37	0.028	0.155
HCM Control Delay	9.3	9.9	7.6	11.3	7.5	9.1
HCM Lane LOS	A	A	A	B	A	A
HCM 95th-tile Q	0.7	0.9	0.1	1.7	0.1	0.5

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	868	0	517	542	1140	1318	711
Future Volume (vph)	868	0	517	542	1140	1318	711
Turn Type	Perm	NA	Perm	Prot	NA	NA	Perm
Protected Phases		8		5	2	6	
Permitted Phases	8		8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	9.6	23.2	16.2	16.2
Total Split (s)	31.0	31.0	31.0	18.0	59.0	41.0	41.0
Total Split (%)	34.4%	34.4%	34.4%	20.0%	65.6%	45.6%	45.6%
Yellow Time (s)	4.8	4.8	4.8	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	6.2	6.2	6.2
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Riverside Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	868	0	517	542	1140	0	0	1318	711
Future Volume (veh/h)	0	0	0	868	0	517	542	1140	0	0	1318	711
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				1039	0	248	577	1213	0	0	1402	562
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1017	0	452	524	3036	0	0	2514	619
Arrive On Green				0.28	0.00	0.28	0.15	0.59	0.00	0.00	0.38	0.38
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1610
Grp Volume(v), veh/h				1039	0	248	577	1213	0	0	1402	562
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1610
Q Serve(g_s), s				25.2	0.0	11.7	13.4	11.4	0.0	0.0	15.1	29.6
Cycle Q Clear(g_c), s				25.2	0.0	11.7	13.4	11.4	0.0	0.0	15.1	29.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1017	0	452	524	3036	0	0	2514	619
V/C Ratio(X)				1.02	0.00	0.55	1.10	0.40	0.00	0.00	0.56	0.91
Avail Cap(c_a), veh/h				1017	0	452	524	3053	0	0	2536	625
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				32.2	0.0	27.4	38.1	10.1	0.0	0.0	21.6	26.1
Incr Delay (d2), s/veh				33.9	0.0	1.4	69.5	0.1	0.0	0.0	0.3	17.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				15.1	0.0	4.4	10.6	3.7	0.0	0.0	5.4	13.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				66.1	0.0	28.8	107.7	10.2	0.0	0.0	22.0	43.4
LnGrp LOS				F	A	C	F	B	A	A	C	D
Approach Vol, veh/h					1287			1790			1964	
Approach Delay, s/veh					58.9			41.6			28.1	
Approach LOS					E			D			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		58.7			18.0	40.7		31.0				
Change Period (Y+Rc), s		6.2			4.6	6.2		5.8				
Max Green Setting (Gmax), s		52.8			13.4	34.8		25.2				
Max Q Clear Time (g_c+I1), s		13.4			15.4	31.6		27.2				
Green Ext Time (p_c), s		15.1			0.0	2.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		40.8	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

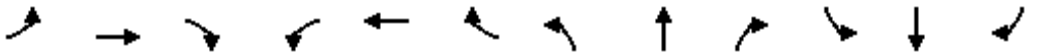
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	552	4	848	1130	514	1672
Future Volume (vph)	552	4	848	1130	514	1672
Turn Type	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		2	1	6
Permitted Phases	4		4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	15.8	15.8	15.8	23.2	9.6	16.2
Total Split (s)	31.0	31.0	31.0	36.0	23.0	59.0
Total Split (%)	34.4%	34.4%	34.4%	40.0%	25.6%	65.6%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	6.2	4.6	6.2
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 89.6
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Riverside Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	552	4	848	0	0	0	0	1130	739	514	1672	0
Future Volume (veh/h)	552	4	848	0	0	0	0	1130	739	514	1672	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	897	0	508				0	1256	759	571	1858	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1030	0	458				0	1186	545	649	2094	0
Arrive On Green	0.28	0.00	0.28				0.00	0.34	0.34	0.18	0.58	0.00
Sat Flow, veh/h	3619	0	1610				0	3629	1588	3510	3705	0
Grp Volume(v), veh/h	897	0	508				0	1256	759	571	1858	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1588	1755	1805	0
Q Serve(g_s), s	20.9	0.0	25.2				0.0	30.4	30.4	14.0	39.5	0.0
Cycle Q Clear(g_c), s	20.9	0.0	25.2				0.0	30.4	30.4	14.0	39.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1030	0	458				0	1186	545	649	2094	0
V/C Ratio(X)	0.87	0.00	1.11				0.00	1.06	1.39	0.88	0.89	0.00
Avail Cap(c_a), veh/h	1030	0	458				0	1186	545	729	2152	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.1	0.0	31.7				0.0	29.1	29.1	35.1	16.1	0.0
Incr Delay (d2), s/veh	8.2	0.0	75.0				0.0	43.2	187.9	10.2	5.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	18.7				0.0	18.7	39.1	6.6	14.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	0.0	106.7				0.0	72.3	217.0	45.3	21.1	0.0
LnGrp LOS	D	A	F				A	F	F	D	C	A
Approach Vol, veh/h		1405						2015			2429	
Approach Delay, s/veh		63.1						126.8			26.8	
Approach LOS		E						F			C	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.0	36.6		31.0		57.6						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	18.4	29.8		25.2		52.8						
Max Q Clear Time (g_c+I1), s	16.0	32.4		27.2		41.5						
Green Ext Time (p_c), s	0.4	0.0		0.0		9.9						

Intersection Summary		
HCM 6th Ctrl Delay		70.0
HCM 6th LOS		E

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	252	34	24	18	62	1569	19	2108
Future Volume (vph)	252	34	24	18	62	1569	19	2108
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	28.8	28.8	9.6	27.5	9.6	30.5
Total Split (s)	32.8	32.8	32.8	32.8	9.8	47.2	10.0	47.4
Total Split (%)	36.4%	36.4%	36.4%	36.4%	10.9%	52.4%	11.1%	52.7%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 82.6
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Riverside Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	34	55	24	18	48	62	1569	26	19	2108	394
Future Volume (veh/h)	252	34	55	24	18	48	62	1569	26	19	2108	394
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	286	39	43	27	20	38	70	1783	29	22	2395	390
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	410	460	405	400	460	409	90	1908	31	43	1558	247
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.52	0.52	0.02	0.50	0.50
Sat Flow, veh/h	1364	1805	1589	1337	1805	1606	1810	3635	59	1810	3121	495
Grp Volume(v), veh/h	286	39	43	27	20	38	70	883	929	22	1357	1428
Grp Sat Flow(s),veh/h/ln	1364	1805	1589	1337	1805	1606	1810	1805	1889	1810	1805	1811
Q Serve(g_s), s	16.7	1.4	1.7	1.3	0.7	1.5	3.2	37.6	37.9	1.0	41.2	41.2
Cycle Q Clear(g_c), s	18.2	1.4	1.7	3.0	0.7	1.5	3.2	37.6	37.9	1.0	41.2	41.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.27
Lane Grp Cap(c), veh/h	410	460	405	400	460	409	90	948	991	43	901	904
V/C Ratio(X)	0.70	0.08	0.11	0.07	0.04	0.09	0.77	0.93	0.94	0.51	1.51	1.58
Avail Cap(c_a), veh/h	515	599	528	503	599	533	114	948	991	118	901	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	23.4	23.6	24.7	23.2	23.5	38.8	18.2	18.3	39.8	20.7	20.7
Incr Delay (d2), s/veh	3.0	0.1	0.1	0.1	0.0	0.1	17.0	15.7	15.8	3.4	233.6	266.4
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	5.5	0.6	0.6	0.4	0.3	0.5	1.7	16.0	16.9	0.4	71.9	80.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	23.5	23.7	24.8	23.2	23.6	55.8	33.9	34.1	43.2	254.3	287.1
LnGrp LOS	C	C	C	C	C	C	E	C	C	D	F	F
Approach Vol, veh/h		368			85			1882			2807	
Approach Delay, s/veh		31.2			23.9			34.8			269.3	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	49.5		26.4	8.7	47.4		26.4				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		5.4				
Max Green Setting (Gmax), s	5.4	41.0		27.4	5.2	41.2		27.4				
Max Q Clear Time (g_c+I1), s	3.0	39.9		20.2	5.2	43.2		5.0				
Green Ext Time (p_c), s	0.0	1.0		0.8	0.0	0.0		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		162.4	
HCM 6th LOS		F	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	128	1	55	9	73	52	1412	63	1885
Future Volume (vph)	128	1	55	9	73	52	1412	63	1885
Turn Type	Perm	NA	Perm	NA	Perm	Prot	NA	Prot	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	28.4	28.4	26.4	26.4	26.4	9.6	26.5	9.6	27.5
Total Split (s)	28.6	28.6	28.6	28.6	28.6	11.6	47.6	13.8	49.8
Total Split (%)	31.8%	31.8%	31.8%	31.8%	31.8%	12.9%	52.9%	15.3%	55.3%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	3.6	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	4.6	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 78
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Riverside Av. & Santa Ana Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	1	38	55	9	73	52	1412	56	63	1885	167
Future Volume (veh/h)	128	1	38	55	9	73	52	1412	56	63	1885	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	144	1	32	62	10	75	58	1587	61	71	2118	185
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	286	7	214	264	259	220	86	2076	80	94	1988	171
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.05	0.59	0.59	0.05	0.59	0.59
Sat Flow, veh/h	1427	49	1569	1398	1900	1610	1810	3542	136	1810	3363	289
Grp Volume(v), veh/h	144	0	33	62	10	75	58	806	842	71	1122	1181
Grp Sat Flow(s),veh/h/ln	1427	0	1618	1398	1900	1610	1810	1805	1872	1810	1805	1848
Q Serve(g_s), s	7.1	0.0	1.3	3.0	0.3	3.1	2.3	24.5	24.8	2.8	43.3	43.3
Cycle Q Clear(g_c), s	7.5	0.0	1.3	4.3	0.3	3.1	2.3	24.5	24.8	2.8	43.3	43.3
Prop In Lane	1.00		0.97	1.00		1.00	1.00		0.07	1.00		0.16
Lane Grp Cap(c), veh/h	286	0	221	264	259	220	86	1058	1098	94	1067	1092
V/C Ratio(X)	0.50	0.00	0.15	0.24	0.04	0.34	0.68	0.76	0.77	0.75	1.05	1.08
Avail Cap(c_a), veh/h	544	0	512	516	602	510	173	1058	1098	227	1067	1092
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	27.9	29.8	27.5	28.7	34.3	11.3	11.4	34.2	15.0	15.0
Incr Delay (d2), s/veh	1.4	0.0	0.3	0.5	0.1	0.9	3.5	3.5	3.5	4.5	42.1	52.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.5	1.0	0.1	1.2	1.0	7.5	7.8	1.2	23.8	27.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	28.2	30.2	27.5	29.6	37.8	14.9	14.9	38.7	57.1	66.9
LnGrp LOS	C	A	C	C	C	C	D	B	B	D	F	F
Approach Vol, veh/h		177			147			1706			2374	
Approach Delay, s/veh		31.4			29.7			15.7			61.5	
Approach LOS		C			C			B			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	49.4		15.4	8.1	49.8		15.4				
Change Period (Y+Rc), s	4.6	6.5		5.4	4.6	6.5		5.4				
Max Green Setting (Gmax), s	9.2	41.1		23.2	7.0	43.3		23.2				
Max Q Clear Time (g_c+I1), s	4.8	26.8		9.5	4.3	45.3		6.3				
Green Ext Time (p_c), s	0.0	10.7		0.4	0.0	0.0		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		41.4	
HCM 6th LOS		D	

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↰	↑			↕			↕	
Traffic Vol, veh/h	0	169	0	1	119	6	3	0	6	3	0	5
Future Vol, veh/h	0	169	0	1	119	6	3	0	6	3	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	92	92	95	95	92	92	92	95	92	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	178	0	1	125	6	3	0	7	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	131	0	0	178	0	0	311	311	178	312	308	128
Stage 1	-	-	-	-	-	-	178	178	-	130	130	-
Stage 2	-	-	-	-	-	-	133	133	-	182	178	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1467	-	-	1410	-	-	645	607	870	644	609	927
Stage 1	-	-	-	-	-	-	828	756	-	878	792	-
Stage 2	-	-	-	-	-	-	875	790	-	824	756	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1467	-	-	1410	-	-	641	606	870	639	608	927
Mov Cap-2 Maneuver	-	-	-	-	-	-	641	606	-	639	608	-
Stage 1	-	-	-	-	-	-	828	756	-	878	791	-
Stage 2	-	-	-	-	-	-	869	789	-	818	756	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	9.7	9.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	777	1467	-	-	1410	-	-	793
HCM Lane V/C Ratio	0.013	-	-	-	0.001	-	-	0.011
HCM Control Delay (s)	9.7	0	-	-	7.6	-	-	9.6
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	177	0	19	124	0	1	34	25	7	39	2
Future Vol, veh/h	1	177	0	19	124	0	1	34	25	7	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	92	92	93	93	92	92	92	93	92	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	190	0	21	133	0	1	37	27	8	42	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	133	0	0	190	0	0	389	367	190	399	367	133
Stage 1	-	-	-	-	-	-	192	192	-	175	175	-
Stage 2	-	-	-	-	-	-	197	175	-	224	192	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1464	-	-	1396	-	-	574	565	857	565	565	922
Stage 1	-	-	-	-	-	-	814	745	-	832	758	-
Stage 2	-	-	-	-	-	-	809	758	-	783	745	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1464	-	-	1396	-	-	533	556	857	513	556	922
Mov Cap-2 Maneuver	-	-	-	-	-	-	533	556	-	513	556	-
Stage 1	-	-	-	-	-	-	813	744	-	831	747	-
Stage 2	-	-	-	-	-	-	750	747	-	720	744	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	11.1	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	651	1464	-	-	1396	-	-	558
HCM Lane V/C Ratio	0.1	0.001	-	-	0.015	-	-	0.093
HCM Control Delay (s)	11.1	7.5	-	-	7.6	-	-	12.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	171	14	39	106	18	17	87	64	22	67	19
Future Vol, veh/h	23	171	14	39	106	18	17	87	64	22	67	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	186	15	42	115	20	18	95	70	24	73	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	135	0	0	201	0	0	500	463	194	535	460	125
Stage 1	-	-	-	-	-	-	244	244	-	209	209	-
Stage 2	-	-	-	-	-	-	256	219	-	326	251	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1462	-	-	1383	-	-	484	499	853	459	501	931
Stage 1	-	-	-	-	-	-	764	708	-	798	733	-
Stage 2	-	-	-	-	-	-	753	726	-	691	703	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1462	-	-	1383	-	-	402	475	853	344	476	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	402	475	-	344	476	-
Stage 1	-	-	-	-	-	-	751	696	-	784	709	-
Stage 2	-	-	-	-	-	-	639	702	-	539	691	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.8	14.5	14.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	559	1462	-	-	1383	-	-	480
HCM Lane V/C Ratio	0.327	0.017	-	-	0.031	-	-	0.245
HCM Control Delay (s)	14.5	7.5	-	-	7.7	0	-	14.9
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.1	-	-	1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	6	1	154	107	13
Future Vol, veh/h	15	6	1	154	107	13
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, %	0	0	0	0	0	0
Mvmt Flow	16	7	1	167	116	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	292	123	130	0	-	0
Stage 1	123	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	703	933	1468	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	866	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	702	933	1468	-	-	-
Mov Cap-2 Maneuver	702	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	866	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1468	-	755	-	-
HCM Lane V/C Ratio	0.001	-	0.03	-	-
HCM Control Delay (s)	7.5	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	223	22	27	142	30	6	64	35	9	94	15
Future Vol, veh/h	12	223	22	27	142	30	6	64	35	9	94	15
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	240	24	29	153	32	6	69	38	10	101	16
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.1	10	9.2	9.5
HCM LOS	B	A	A	A

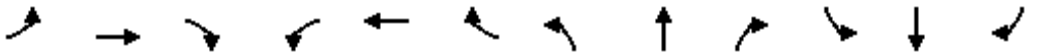
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	6%	5%	0%	16%	0%	8%
Vol Thru, %	61%	95%	0%	84%	0%	80%
Vol Right, %	33%	0%	100%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	235	22	169	30	118
LT Vol	6	12	0	27	0	9
Through Vol	64	223	0	142	0	94
RT Vol	35	0	22	0	30	15
Lane Flow Rate	113	253	24	182	32	127
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.161	0.376	0.03	0.277	0.042	0.184
Departure Headway (Hd)	5.121	5.359	4.627	5.478	4.691	5.222
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	692	665	765	649	754	680
Service Time	3.211	3.143	2.41	3.266	2.478	3.311
HCM Lane V/C Ratio	0.163	0.38	0.031	0.28	0.042	0.187
HCM Control Delay	9.2	11.4	7.6	10.4	7.7	9.5
HCM Lane LOS	A	B	A	B	A	A
HCM 95th-tile Q	0.6	1.7	0.1	1.1	0.1	0.7

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	681	0	552	683	1652	1284	635
Future Volume (vph)	681	0	552	683	1652	1284	635
Turn Type	Perm	NA	Perm	Prot	NA	NA	Perm
Protected Phases		8		5	2	6	
Permitted Phases	8		8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	9.6	23.2	16.2	16.2
Total Split (s)	35.0	35.0	35.0	20.0	55.0	35.0	35.0
Total Split (%)	38.9%	38.9%	38.9%	22.2%	61.1%	38.9%	38.9%
Yellow Time (s)	4.8	4.8	4.8	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	6.2	6.2	6.2
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 88
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Riverside Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	681	0	552	683	1652	0	0	1284	635
Future Volume (veh/h)	0	0	0	681	0	552	683	1652	0	0	1284	635
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				845	0	306	704	1703	0	0	1324	506
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1012	0	450	642	2997	0	0	2225	548
Arrive On Green				0.28	0.00	0.28	0.18	0.58	0.00	0.00	0.34	0.34
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1610
Grp Volume(v), veh/h				845	0	306	704	1703	0	0	1324	506
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1610
Q Serve(g_s), s				18.5	0.0	14.2	15.4	17.4	0.0	0.0	14.1	25.5
Cycle Q Clear(g_c), s				18.5	0.0	14.2	15.4	17.4	0.0	0.0	14.1	25.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1012	0	450	642	2997	0	0	2225	548
V/C Ratio(X)				0.83	0.00	0.68	1.10	0.57	0.00	0.00	0.60	0.92
Avail Cap(c_a), veh/h				1254	0	558	642	3005	0	0	2235	550
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.5	0.0	27.0	34.4	11.2	0.0	0.0	23.0	26.7
Incr Delay (d2), s/veh				4.2	0.0	2.4	65.0	0.3	0.0	0.0	0.5	21.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.0	0.0	5.4	12.0	5.6	0.0	0.0	5.1	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.7	0.0	29.4	99.4	11.5	0.0	0.0	23.5	48.3
LnGrp LOS				C	A	C	F	B	A	A	C	D
Approach Vol, veh/h					1151			2407			1830	
Approach Delay, s/veh					31.8			37.2			30.4	
Approach LOS					C			D			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	54.9		20.0	34.9		29.4						
Change Period (Y+Rc), s	6.2		4.6	6.2		5.8						
Max Green Setting (Gmax), s	48.8		15.4	28.8		29.2						
Max Q Clear Time (g_c+I1), s	19.4		17.4	27.5		20.5						
Green Ext Time (p_c), s	19.6		0.0	1.2		3.1						

Intersection Summary	
HCM 6th Ctrl Delay	33.7
HCM 6th LOS	C

Notes

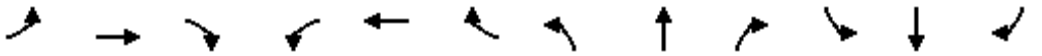
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	655	0	718	1683	540	1423
Future Volume (vph)	655	0	718	1683	540	1423
Turn Type	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		2	1	6
Permitted Phases	4		4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	15.8	15.8	15.8	23.2	9.6	16.2
Total Split (s)	30.0	30.0	30.0	44.0	16.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	48.9%	17.8%	66.7%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	6.2	4.6	6.2
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Riverside Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	655	0	718	0	0	0	0	1683	978	540	1423	0
Future Volume (veh/h)	655	0	718	0	0	0	0	1683	978	540	1423	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	865	0	393				0	1753	948	562	1482	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	961	0	428				0	1459	679	447	2168	0
Arrive On Green	0.27	0.00	0.27				0.00	0.42	0.42	0.13	0.60	0.00
Sat Flow, veh/h	3619	0	1610				0	3629	1609	3510	3705	0
Grp Volume(v), veh/h	865	0	393				0	1753	948	562	1482	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1609	1755	1805	0
Q Serve(g_s), s	20.7	0.0	21.2				0.0	37.8	37.8	11.4	24.9	0.0
Cycle Q Clear(g_c), s	20.7	0.0	21.2				0.0	37.8	37.8	11.4	24.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	961	0	428				0	1459	679	447	2168	0
V/C Ratio(X)	0.90	0.00	0.92				0.00	1.20	1.40	1.26	0.68	0.00
Avail Cap(c_a), veh/h	977	0	435				0	1459	679	447	2168	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.8	0.0	32.0				0.0	25.9	25.9	39.1	12.1	0.0
Incr Delay (d2), s/veh	11.1	0.0	24.3				0.0	97.6	187.3	133.3	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	10.6				0.0	33.7	48.3	13.0	8.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	0.0	56.3				0.0	123.5	213.2	172.4	13.1	0.0
LnGrp LOS	D	A	E				A	F	F	F	B	A
Approach Vol, veh/h		1258						2701			2044	
Approach Delay, s/veh		47.0						155.0			56.9	
Approach LOS		D						F			E	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.0	44.0		29.6		60.0						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	11.4	37.8		24.2		53.8						
Max Q Clear Time (g_c+I1), s	13.4	39.8		23.2		26.9						
Green Ext Time (p_c), s	0.0	0.0		0.6		16.7						

Intersection Summary			
HCM 6th Ctrl Delay			99.0
HCM 6th LOS			F

Notes

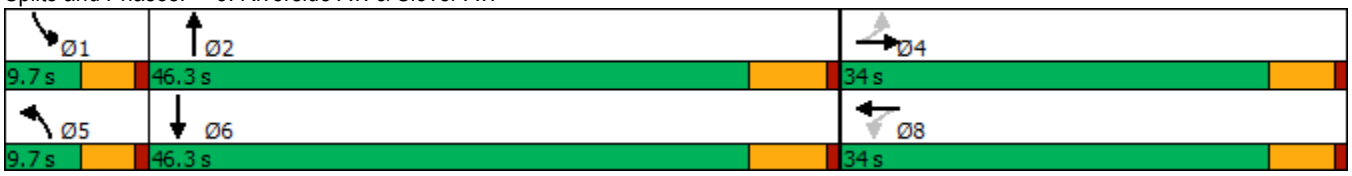
User approved volume balancing among the lanes for turning movement.

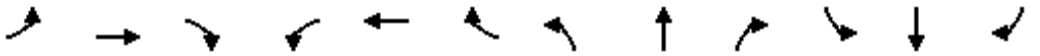
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	371	131	36	29	44	2205	33	1790
Future Volume (vph)	371	131	36	29	44	2205	33	1790
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	28.8	28.8	9.6	27.5	9.6	30.5
Total Split (s)	34.0	34.0	34.0	34.0	9.7	46.3	9.7	46.3
Total Split (%)	37.8%	37.8%	37.8%	37.8%	10.8%	51.4%	10.8%	51.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 84.9
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Riverside Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	371	131	135	36	29	84	44	2205	6	33	1790	319
Future Volume (veh/h)	371	131	135	36	29	84	44	2205	6	33	1790	319
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	379	134	105	37	30	66	45	2250	6	34	1827	325
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	471	645	469	395	585	522	69	1700	5	58	1396	240
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.04	0.46	0.46	0.03	0.45	0.45
Sat Flow, veh/h	1320	1991	1447	1157	1805	1610	1810	3693	10	1810	3073	529
Grp Volume(v), veh/h	379	121	118	37	30	66	45	1099	1157	34	1048	1104
Grp Sat Flow(s),veh/h/ln	1320	1805	1633	1157	1805	1610	1810	1805	1898	1810	1805	1797
Q Serve(g_s), s	25.0	4.3	4.7	2.1	1.0	2.5	2.2	40.6	40.6	1.6	40.1	40.1
Cycle Q Clear(g_c), s	27.6	4.3	4.7	6.8	1.0	2.5	2.2	40.6	40.6	1.6	40.1	40.1
Prop In Lane	1.00		0.89	1.00		1.00	1.00		0.01	1.00		0.29
Lane Grp Cap(c), veh/h	471	585	529	395	585	522	69	831	874	58	820	817
V/C Ratio(X)	0.80	0.21	0.22	0.09	0.05	0.13	0.66	1.32	1.32	0.59	1.28	1.35
Avail Cap(c_a), veh/h	471	585	529	395	585	522	105	831	874	105	820	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	21.6	21.7	24.2	20.5	21.0	41.9	23.8	23.8	42.1	24.1	24.1
Incr Delay (d2), s/veh	9.8	0.2	0.2	0.1	0.0	0.1	3.9	153.7	153.9	3.5	134.5	166.2
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	8.7	1.7	1.7	0.6	0.4	0.9	1.0	49.7	52.3	0.7	44.7	51.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	21.8	21.9	24.3	20.5	21.1	45.8	177.5	177.7	45.6	158.6	190.3
LnGrp LOS	D	C	C	C	C	C	D	F	F	D	F	F
Approach Vol, veh/h		618			133			2301			2186	
Approach Delay, s/veh		33.3			21.9			175.0			172.9	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	46.8		34.0	7.9	46.3		34.0				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		5.4				
Max Green Setting (Gmax), s	5.1	40.1		28.6	5.1	40.1		28.6				
Max Q Clear Time (g_c+I1), s	3.6	42.6		29.6	4.2	42.1		8.8				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		153.5	
HCM 6th LOS		F	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	179	25	49	20	91	66	1959	55	1803
Future Volume (vph)	179	25	49	20	91	66	1959	55	1803
Turn Type	Perm	NA	Perm	NA	Perm	Prot	NA	Prot	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	28.4	28.4	26.4	26.4	26.4	9.6	26.5	9.6	27.5
Total Split (s)	28.6	28.6	28.6	28.6	28.6	12.0	49.4	12.0	49.4
Total Split (%)	31.8%	31.8%	31.8%	31.8%	31.8%	13.3%	54.9%	13.3%	54.9%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	3.6	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	4.6	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 80.5
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Riverside Av. & Santa Ana Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	25	63	49	20	91	66	1959	46	55	1803	112
Future Volume (veh/h)	179	25	63	49	20	91	66	1959	46	55	1803	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	190	27	39	52	21	70	70	2084	49	59	1918	115
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	122	176	285	331	280	91	2033	48	84	1936	115
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.05	0.56	0.56	0.05	0.56	0.56
Sat Flow, veh/h	1413	702	1014	1355	1900	1610	1810	3605	84	1810	3458	205
Grp Volume(v), veh/h	190	0	66	52	21	70	70	1039	1094	59	990	1043
Grp Sat Flow(s),veh/h/ln	1413	0	1715	1355	1900	1610	1810	1805	1885	1810	1805	1858
Q Serve(g_s), s	9.9	0.0	2.5	2.6	0.7	2.9	2.9	43.2	43.2	2.5	41.0	42.9
Cycle Q Clear(g_c), s	10.6	0.0	2.5	5.2	0.7	2.9	2.9	43.2	43.2	2.5	41.0	42.9
Prop In Lane	1.00		0.59	1.00		1.00	1.00		0.04	1.00		0.11
Lane Grp Cap(c), veh/h	327	0	299	285	331	280	91	1018	1063	84	1011	1040
V/C Ratio(X)	0.58	0.00	0.22	0.18	0.06	0.25	0.77	1.02	1.03	0.70	0.98	1.00
Avail Cap(c_a), veh/h	509	0	520	459	575	488	175	1018	1063	175	1011	1040
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	0.0	27.2	29.4	26.4	27.3	35.9	16.7	16.7	36.0	16.4	16.9
Incr Delay (d2), s/veh	1.6	0.0	0.4	0.3	0.1	0.5	4.9	33.6	35.3	3.9	23.5	28.4
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	3.3	0.0	1.0	0.8	0.3	1.1	1.3	21.8	23.3	1.1	18.4	20.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	0.0	27.5	29.7	26.5	27.8	40.8	50.3	52.0	39.8	39.9	45.3
LnGrp LOS	C	A	C	C	C	C	D	F	F	D	D	F
Approach Vol, veh/h		256			143			2203			2092	
Approach Delay, s/veh		31.2			28.3			50.9			42.6	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	49.7		18.7	8.5	49.4		18.7				
Change Period (Y+Rc), s	4.6	6.5		5.4	4.6	6.5		5.4				
Max Green Setting (Gmax), s	7.4	42.9		23.2	7.4	42.9		23.2				
Max Q Clear Time (g_c+I1), s	4.5	45.2		12.6	4.9	44.9		7.2				
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	0.0		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		45.4	
HCM 6th LOS		D	

APPENDIX 6.2: EAPC (2024) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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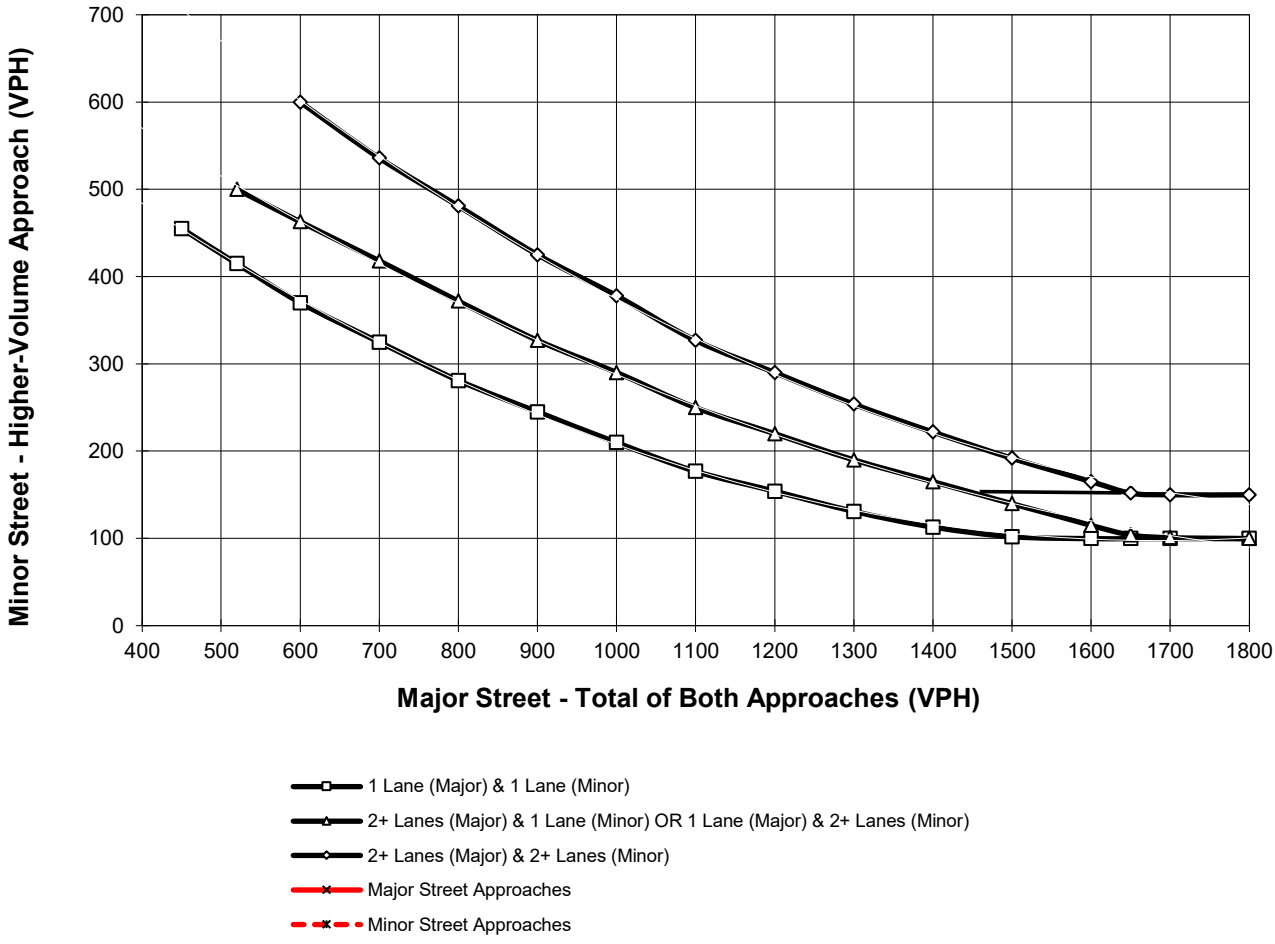
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2024) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **295**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 1**
High Volume Approach (VPH) = **9**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

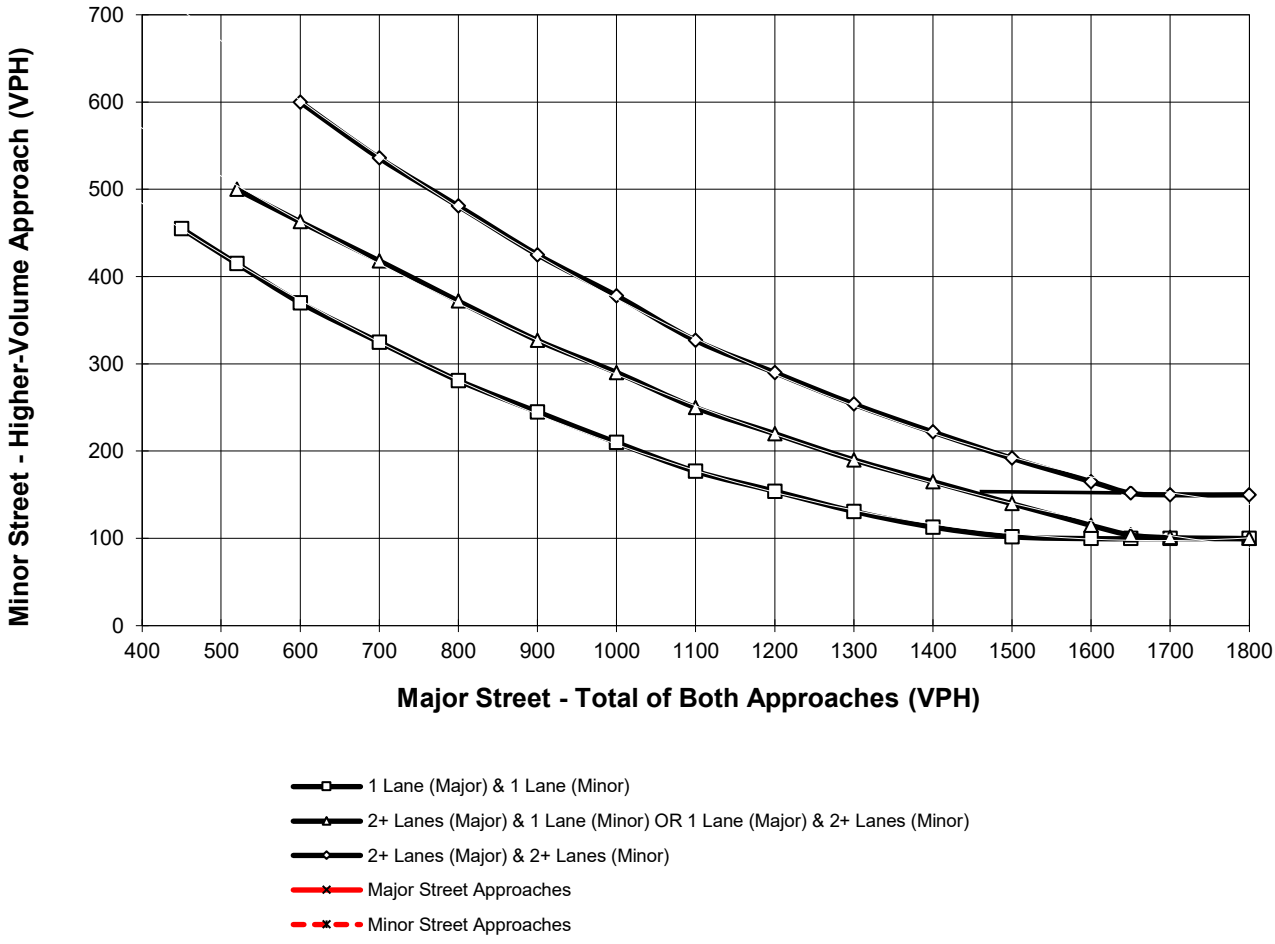
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2024) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **321**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**
High Volume Approach (VPH) = **60**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

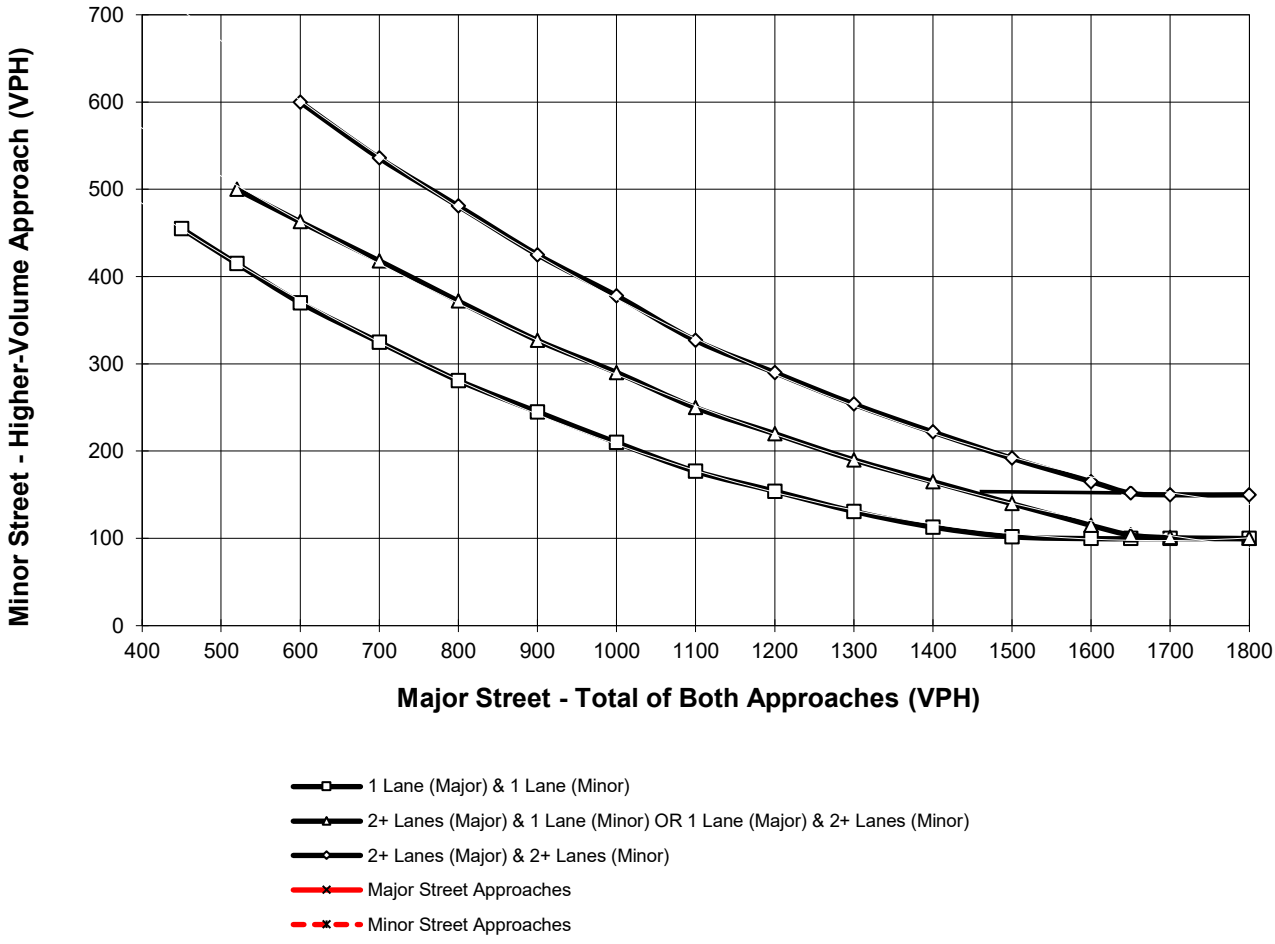
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2024) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **371**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Lilac Av.**
High Volume Approach (VPH) = **168**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	EAPC (2024)
				CALC CS	DATE 04/12/23
Jurisdiction: **City of Rialto**				CHK CS	DATE 04/12/23
Major Street: **Lilac Avenue**				Critical Approach Speed (Major)	35 mph
Minor Street: **Driveway 3**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,712** vpd Minor Street Future ADT = **96** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,712**	*1* **96**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,712**	*1* **96**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 4% **B** 8%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

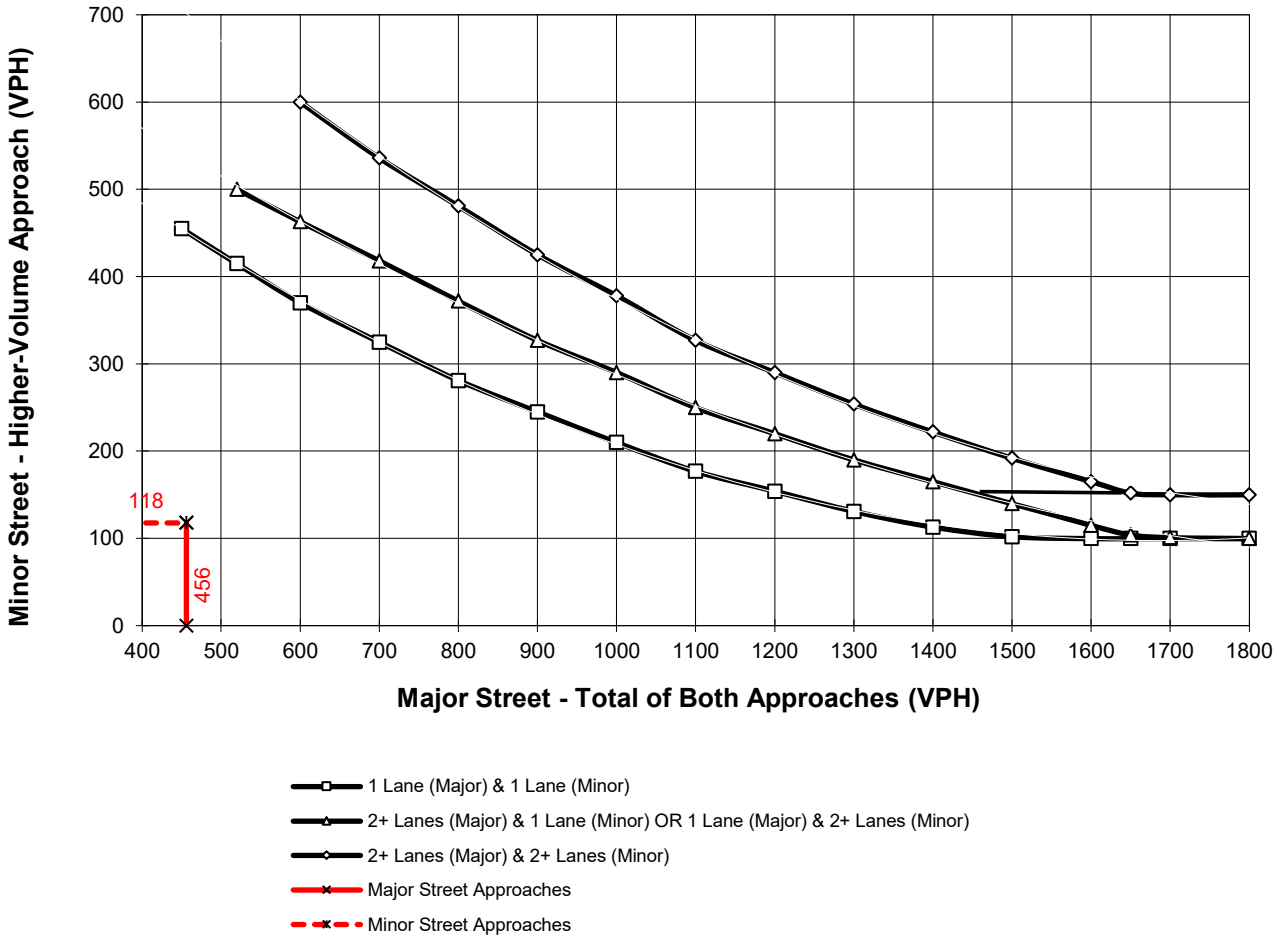
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2024) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av.**
Total of Both Approaches (VPH) = **456**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Willow Av.**
High Volume Approach (VPH) = **118**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 6.3: EAPC (2024) CONDITIONS OFF-RAMP QUEUEING ANALYSIS WORKSEHETS

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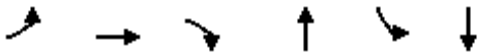


Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	508	503	462	577	1213	1402	756
v/c Ratio	1.06	0.97	0.93	1.11	0.40	0.55	0.71
Control Delay	90.8	59.6	53.0	109.5	10.5	22.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.7	0.0	0.0
Total Delay	90.8	59.6	53.0	109.5	11.3	22.6	6.6
Queue Length 50th (ft)	~336	259	220	~194	125	177	15
Queue Length 95th (ft)	#537	#484	#421	#297	154	212	112
Internal Link Dist (ft)		1238			270	982	
Turn Bay Length (ft)	360		360	160			210
Base Capacity (vph)	480	521	497	521	3043	2527	1062
Starvation Cap Reductn	0	0	0	0	1379	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.97	0.93	1.11	0.73	0.55	0.71

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	539	511	509	2077	571	1858
v/c Ratio	1.12	1.19	1.02	1.20dr	0.85	0.88
Control Delay	109.9	135.8	73.7	107.8	47.7	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	46.9
Total Delay	109.9	135.8	73.7	107.8	47.7	69.1
Queue Length 50th (ft)	~375	~384	~271	~502	160	436
Queue Length 95th (ft)	#582	#598	#489	#600	#234	556
Internal Link Dist (ft)		1268		1816		270
Turn Bay Length (ft)			290			
Base Capacity (vph)	482	431	499	1782	718	2126
Starvation Cap Reductn	0	0	0	0	0	597
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.12	1.19	1.02	1.17	0.80	1.22

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

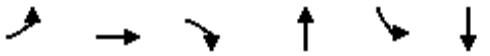


Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	442	431	398	704	1703	1324	655
v/c Ratio	0.84	0.78	0.74	1.15	0.59	0.62	0.68
Control Delay	44.0	32.6	29.8	119.3	14.3	26.8	6.1
Queue Delay	0.0	0.0	0.0	0.0	3.2	0.0	0.0
Total Delay	44.0	32.6	29.8	119.3	17.5	26.8	6.1
Queue Length 50th (ft)	238	187	157	~248	227	185	0
Queue Length 95th (ft)	#398	#323	272	#358	272	223	82
Internal Link Dist (ft)		1238			270	982	
Turn Bay Length (ft)	360		360	160			210
Base Capacity (vph)	570	588	573	614	2882	2143	969
Starvation Cap Reductn	0	0	0	0	1049	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.73	0.69	1.15	0.93	0.62	0.68

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	498	476	456	2772	563	1482
v/c Ratio	1.08	0.99	0.95	1.28	1.27	0.69
Control Delay	98.8	65.8	57.4	154.8	173.3	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	33.0
Total Delay	98.8	65.8	57.4	154.8	173.3	47.5
Queue Length 50th (ft)	~336	245	218	~719	~210	277
Queue Length 95th (ft)	#536	#470	#422	#815	#312	352
Internal Link Dist (ft)		1268		1816		270
Turn Bay Length (ft)			290			
Base Capacity (vph)	461	483	481	2164	443	2157
Starvation Cap Reductn	0	0	0	0	0	762
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.08	0.99	0.95	1.28	1.27	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

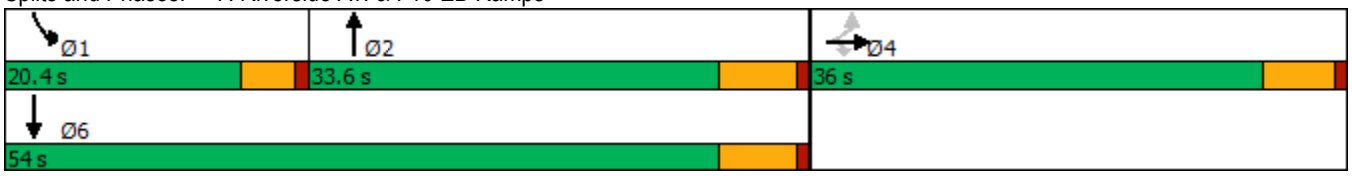
APPENDIX 6.4: EAPC (2024) INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

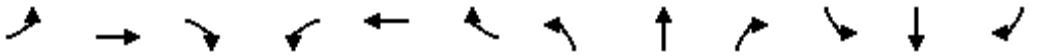
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Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	552	4	848	1130	514	1672
Future Volume (vph)	552	4	848	1130	514	1672
Turn Type	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		2	1	6
Permitted Phases	4		4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	15.8	15.8	15.8	23.2	9.6	16.2
Total Split (s)	36.0	36.0	36.0	33.6	20.4	54.0
Total Split (%)	40.0%	40.0%	40.0%	37.3%	22.7%	60.0%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	6.2	4.6	6.2
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Riverside Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	552	4	848	0	0	0	0	1130	739	514	1672	0
Future Volume (veh/h)	552	4	848	0	0	0	0	1130	739	514	1672	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	897	0	508				0	1256	0	571	1858	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1209	0	538				0	2345		618	1921	0
Arrive On Green	0.33	0.00	0.33				0.00	0.30	0.00	0.18	0.53	0.00
Sat Flow, veh/h	3619	0	1610				0	8417	0	3510	3705	0
Grp Volume(v), veh/h	897	0	508				0	1256	0	571	1858	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1539	0	1755	1805	0
Q Serve(g_s), s	19.7	0.0	27.5				0.0	12.2	0.0	14.4	44.5	0.0
Cycle Q Clear(g_c), s	19.7	0.0	27.5				0.0	12.2	0.0	14.4	44.5	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	1209	0	538				0	2345		618	1921	0
V/C Ratio(X)	0.74	0.00	0.94				0.00	0.54		0.92	0.97	0.00
Avail Cap(c_a), veh/h	1219	0	542				0	2351		618	1924	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.4	0.0	29.1				0.0	25.9	0.0	36.3	20.2	0.0
Incr Delay (d2), s/veh	2.5	0.0	25.4				0.0	0.3	0.0	19.3	13.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	13.6				0.0	4.2	0.0	7.5	19.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	0.0	54.5				0.0	26.2	0.0	55.7	33.9	0.0
LnGrp LOS	C	A	D				A	C		E	C	A
Approach Vol, veh/h		1405						1256			2429	
Approach Delay, s/veh		38.1						26.2			39.0	
Approach LOS		D						C			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.4	33.5		35.8		53.9						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	15.8	27.4		30.2		47.8						
Max Q Clear Time (g_c+I1), s	16.4	14.2		29.5		46.5						
Green Ext Time (p_c), s	0.0	8.4		0.4		1.2						

Intersection Summary												
HCM 6th Ctrl Delay			35.6									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.
User approved changes to right turn type.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

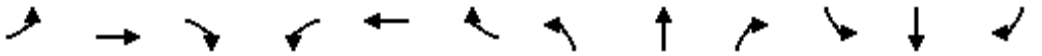
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	252	34	24	18	62	1569	19	2108	394
Future Volume (vph)	252	34	24	18	62	1569	19	2108	394
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	28.4	9.6	25.4	9.6	26.2	9.6	27.2	27.2
Total Split (s)	12.2	28.4	9.6	25.8	9.6	42.4	9.6	42.4	42.4
Total Split (%)	13.6%	31.6%	10.7%	28.7%	10.7%	47.1%	10.7%	47.1%	47.1%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 76.7
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Riverside Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	34	55	24	18	48	62	1569	26	19	2108	394
Future Volume (veh/h)	252	34	55	24	18	48	62	1569	26	19	2108	394
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	286	39	43	27	20	38	70	1783	29	22	2395	390
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	181	304	267	52	174	155	92	2649	43	44	2478	769
Arrive On Green	0.10	0.17	0.17	0.03	0.10	0.10	0.05	0.50	0.50	0.02	0.48	0.48
Sat Flow, veh/h	1810	1805	1589	1810	1805	1603	1810	5256	85	1810	5187	1610
Grp Volume(v), veh/h	286	39	43	27	20	38	70	1173	639	22	2395	390
Grp Sat Flow(s),veh/h/ln	1810	1805	1589	1810	1805	1603	1810	1729	1883	1810	1729	1610
Q Serve(g_s), s	7.6	1.4	1.8	1.1	0.8	1.7	2.9	19.3	19.3	0.9	34.0	12.7
Cycle Q Clear(g_c), s	7.6	1.4	1.8	1.1	0.8	1.7	2.9	19.3	19.3	0.9	34.0	12.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	181	304	267	52	174	155	92	1743	949	44	2478	769
V/C Ratio(X)	1.58	0.13	0.16	0.52	0.11	0.25	0.76	0.67	0.67	0.50	0.97	0.51
Avail Cap(c_a), veh/h	181	548	482	119	486	432	119	1743	949	119	2478	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	26.8	26.9	36.3	31.3	31.7	35.5	14.1	14.1	36.5	19.2	13.6
Incr Delay (d2), s/veh	283.9	0.2	0.3	7.9	0.3	0.8	13.2	1.2	2.1	3.2	11.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.5	0.6	0.6	0.6	0.3	0.6	1.5	6.0	6.8	0.4	13.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	318.0	27.0	27.2	44.2	31.6	32.5	48.7	15.3	16.2	39.7	30.6	14.4
LnGrp LOS	F	C	C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		368			85			1882			2807	
Approach Delay, s/veh		253.2			36.0			16.8			28.4	
Approach LOS		F			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	44.4	6.8	18.2	8.5	42.4	12.2	12.7
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.0	36.2	5.0	23.0	5.0	36.2	7.6	20.4
Max Q Clear Time (g_c+I1), s	2.9	21.3	3.1	3.8	4.9	36.0	9.6	3.7
Green Ext Time (p_c), s	0.0	11.4	0.0	0.3	0.0	0.2	0.0	0.2

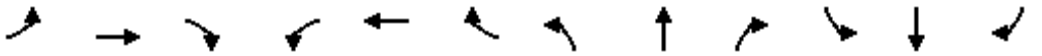
Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	655	0	718	1683	540	1423
Future Volume (vph)	655	0	718	1683	540	1423
Turn Type	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		2	1	6
Permitted Phases	4		4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	15.8	15.8	15.8	23.2	9.6	16.2
Total Split (s)	32.0	32.0	32.0	38.7	19.3	58.0
Total Split (%)	35.6%	35.6%	35.6%	43.0%	21.4%	64.4%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	6.2	4.6	6.2
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Riverside Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	655	0	718	0	0	0	0	1683	978	540	1423	0
Future Volume (veh/h)	655	0	718	0	0	0	0	1683	978	540	1423	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	865	0	393				0	1753	0	562	1482	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1017	0	453				0	2691		609	2084	0
Arrive On Green	0.28	0.00	0.28				0.00	0.35	0.00	0.17	0.58	0.00
Sat Flow, veh/h	3619	0	1610				0	8417	0	3510	3705	0
Grp Volume(v), veh/h	865	0	393				0	1753	0	562	1482	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1539	0	1755	1805	0
Q Serve(g_s), s	19.1	0.0	19.7				0.0	16.3	0.0	13.4	25.0	0.0
Cycle Q Clear(g_c), s	19.1	0.0	19.7				0.0	16.3	0.0	13.4	25.0	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	1017	0	453				0	2691		609	2084	0
V/C Ratio(X)	0.85	0.00	0.87				0.00	0.65		0.92	0.71	0.00
Avail Cap(c_a), veh/h	1118	0	498				0	2949		609	2205	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.8	0.0	29.0				0.0	23.2	0.0	34.5	12.8	0.0
Incr Delay (d2), s/veh	5.9	0.0	14.2				0.0	0.5	0.0	19.6	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	8.9				0.0	5.5	0.0	7.0	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	0.0	43.2				0.0	23.8	0.0	54.0	14.0	0.0
LnGrp LOS	C	A	D				A	C		D	B	A
Approach Vol, veh/h		1258						1753			2044	
Approach Delay, s/veh		37.4						23.8			25.0	
Approach LOS		D						C			C	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.3	35.9		29.6		55.2						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	14.7	32.5		26.2		51.8						
Max Q Clear Time (g_c+I1), s	15.4	18.3		21.7		27.0						
Green Ext Time (p_c), s	0.0	11.4		2.2		15.8						

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

Notes

User approved volume balancing among the lanes for turning movement.

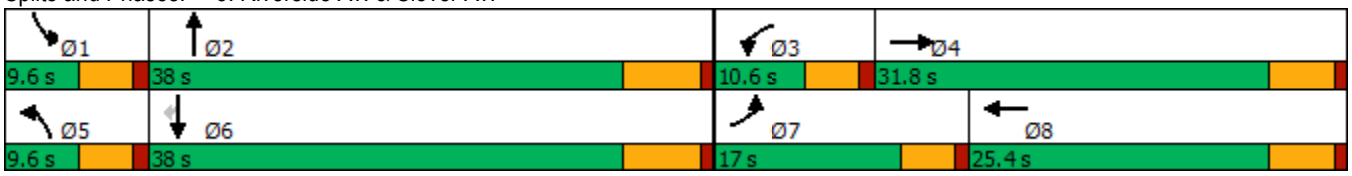
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

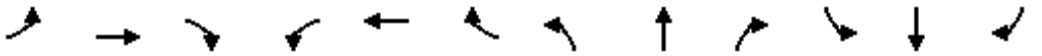
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	371	131	36	29	44	2205	33	1790	319
Future Volume (vph)	371	131	36	29	44	2205	33	1790	319
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	28.4	9.6	25.4	9.6	26.2	9.6	27.2	27.2
Total Split (s)	17.0	31.8	10.6	25.4	9.6	38.0	9.6	38.0	38.0
Total Split (%)	18.9%	35.3%	11.8%	28.2%	10.7%	42.2%	10.7%	42.2%	42.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 75.1
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Riverside Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	371	131	135	36	29	84	44	2205	6	33	1790	319
Future Volume (veh/h)	371	131	135	36	29	84	44	2205	6	33	1790	319
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	379	134	105	37	30	66	45	2250	6	34	1827	325
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	294	479	348	64	206	183	73	2228	6	61	2130	653
Arrive On Green	0.16	0.24	0.24	0.04	0.11	0.11	0.04	0.42	0.42	0.03	0.41	0.41
Sat Flow, veh/h	1810	1990	1446	1810	1805	1610	1810	5341	14	1810	5187	1590
Grp Volume(v), veh/h	379	121	118	37	30	66	45	1456	800	34	1827	325
Grp Sat Flow(s),veh/h/ln	1810	1805	1631	1810	1805	1610	1810	1729	1897	1810	1729	1590
Q Serve(g_s), s	12.4	4.1	4.5	1.5	1.1	2.9	1.9	31.8	31.8	1.4	24.5	11.6
Cycle Q Clear(g_c), s	12.4	4.1	4.5	1.5	1.1	2.9	1.9	31.8	31.8	1.4	24.5	11.6
Prop In Lane	1.00		0.89	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	294	435	393	64	206	183	73	1443	792	61	2130	653
V/C Ratio(X)	1.29	0.28	0.30	0.57	0.15	0.36	0.62	1.01	1.01	0.56	0.86	0.50
Avail Cap(c_a), veh/h	294	625	564	142	473	422	119	1443	792	119	2162	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	23.6	23.7	36.2	30.5	31.2	36.0	22.2	22.2	36.3	20.5	16.7
Incr Delay (d2), s/veh	153.0	0.3	0.4	7.8	0.3	1.2	3.1	26.1	34.5	3.0	3.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.6	1.7	1.7	0.8	0.5	1.1	0.8	15.6	18.9	0.6	8.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	185.0	23.9	24.1	44.0	30.8	32.4	39.2	48.3	56.7	39.3	24.2	17.5
LnGrp LOS	F	C	C	D	C	C	D	F	F	D	C	B
Approach Vol, veh/h		618			133			2301			2186	
Approach Delay, s/veh		122.7			35.3			51.0			23.5	
Approach LOS		F			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	38.0	7.3	23.8	7.7	37.5	17.0	14.1
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.0	31.8	6.0	26.4	5.0	31.8	12.4	20.0
Max Q Clear Time (g_c+I1), s	3.4	33.8	3.5	6.5	3.9	26.5	14.4	4.9
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	4.9	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	47.6
HCM 6th LOS	D

APPENDIX 8.1: VEHICLE MILES TRAVELED (VMT) ANALYSIS

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July 25, 2022

Mr. Jason Brandman
FirstCarbon Solutions
250 Commerce, Suite 250
Irvine, CA 92602

LILAC AVENUE AND SANTA ANA AVENUE WAREHOUSE VEHICLE MILES TRAVELED (VMT) ANALYSIS

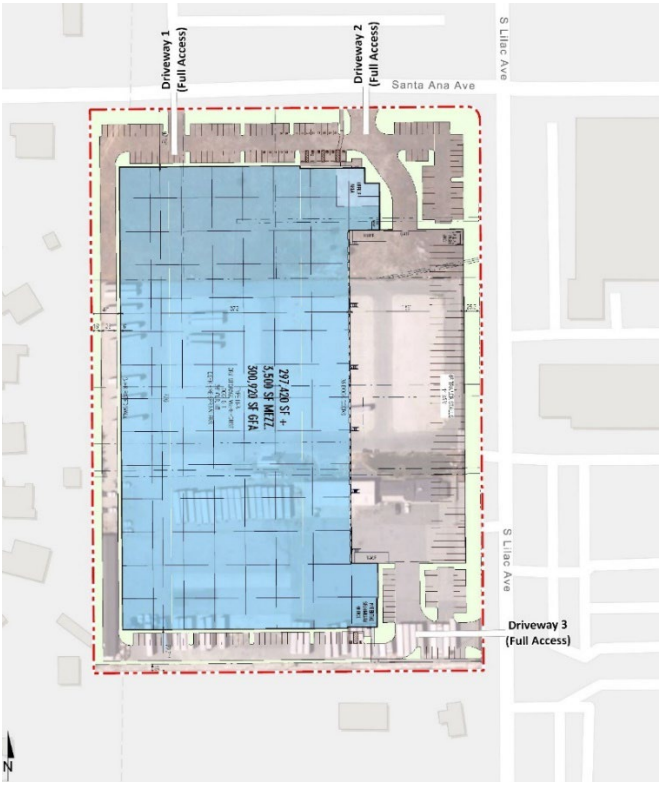
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It is our understanding that the Project consists of a single 301,000 square foot warehouse building. A preliminary site plan can be found in Exhibit 1.

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VMT SCREENING

The City Guidelines provide details on appropriate "screening thresholds" that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed analysis. It is our understanding the City of Rialto utilizes the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool (Screening Tool). The Screening Tool allows users to select an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening thresholds for land use projects identified in the City Guidelines. Screening thresholds are broken into the following three types:

- Step 1: Transit Priority Area (TPA) Screening
- Step 2: Low VMT Area Screening
- Step 3: Project Type Screening

A land use project only needs to meet one of the above screening thresholds to result in a less than significant impact.

STEP 1: TPA SCREENING

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- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

The Project site is not located within ½ mile of an existing major transit stop, or along a high-quality transit corridor, and would not meet the FAR threshold of 0.75 or greater (See Attachment B).

TPA screening threshold is not met.

STEP 2: LOW VMT AREA SCREENING

As noted in the City Guidelines, "Residential and office projects located within a low VMT generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment related uses and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area." The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual traffic analysis zones (TAZs) within the region. The Project's physical location based on parcel number is selected in the Screening Tool to determine the TAZ in which the Project will reside. The Project's TAZ VMT per employee was compared to the County of San Bernardino baseline average VMT per employee. The parcel containing the proposed Project was selected and the Screening Tool was run for Production/Attraction (PA) home-based work (HBW) VMT per employee (see Attachment A). The Screening Tool determined that the Project is not located within a low VMT generating zone.

Low VMT Area screening criteria is not met.

STEP 3: PROJECT TYPE SCREENING

The City Guidelines describe that local serving retail projects less than 50,000 square feet may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition to local serving retail, the City Guidelines also provides a list of land use projects that may be presumed to cause a less than significant impact based on size or quantity:

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- 10,000 sf of office
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- 79,000 sf of high cube transload short-term storage warehouse

The Project proposes to develop a warehouse distribution building totaling of 301,000 sf which exceeds the 63,000 sf project type screening size identified by the City Guidelines.

Project Type screening criteria is not met.

As the Project was not found to meet any of the aforementioned VMT screening criteria, a project level VMT analysis is prepared to assess the Project's potential impact to VMT.

VMT ANALYSIS

VMT MODELING

City Guidelines identify San Bernardino Transportation Analysis Model (SBTAM) as the appropriate tool for conducting VMT analysis for land use projects in San Bernardino County. SBTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The calculation of VMT for land use projects is based on the total number of trips generated and the average trip length of each vehicle. SBTAM is also consistent with the model used to develop the City's VMT impact thresholds listed by the City Guidelines. Therefore, the vehicle trips and average daily trip length for project-related vehicle trips are model derived from SBTAM.

VMT METRIC AND SIGNIFICANCE THRESHOLD

Through consultation with City Staff, it was identified that the appropriate VMT metric for employment generating industrial land uses to be utilized for the purposes of this VMT Analysis is VMT per employee[3]. As noted in the City Guidelines, the Project would result in a significant project generated VMT impact if either of the following conditions is met for industrial projects:

- Baseline project generated VMT per employee exceeds the County of San Bernardino VMT per employee, or
- Cumulative project generated VMT per employee exceeds the County of San Bernardino VMT per employee.

SBCTA provides VMT calculations for each of its member agencies and for the baseline County of San Bernardino region. Urban Crossroads obtained this published data from SBCTA, which for the County of San Bernardino is 17.35 VMT per employee for 2022.

PROJECT LAND USE CONVERSION

In order to evaluate Project VMT, standard land use information must first be converted into a SBTAM compatible dataset. The SBTAM model utilizes socio-economic data (SED) (e.g., population, households, employment, etc.) instead of land use information for the purposes of vehicle trip estimation. Project land use information such as building square footage must first

[3] J. Schlaefli (personal communication, November 18, 2021)

be converted to SED for input into SBTAM. Adjustments in SED have been made to the appropriate TAZ within the SBTAM model to reflect the Project's proposed land uses (i.e., warehouse). Table 1 summarizes the employment estimates for the Project. It should be noted that the employment estimates are consistent with the employment density factors identified in the Southern California Association of Governments (SCAG) Employment Density Study (October 2001) (3).

TABLE 1: EMPLOYMENT ESTIMATES

Land Use	Quantity (SF)	Employment Density Factor[4]	Estimated Employees
Warehouse	301,000	1,195 SF per employee	252

PROJECT GENERATED VMT PER EMPLOYEE CALCULATION

Adjustments to employment for the Project's TAZ were made to the SBTAM base year (2016) and cumulative year (2040) traffic models, and each model was then run inclusive of the SED factors. The ability to capture commute trips can be achieved with the SBTAM model by using the Production/Attraction (PA) trip matrices exclusive of truck trips[5]. Using these matrices, the HBW VMT was calculated for both the base year (2016) and cumulative year (2040) conditions. The HBW VMT is then normalized by dividing by the Project employees. The results of the base year and cumulative year conditions were calculated for baseline (2022) conditions using straight-line interpolation. As shown in Table 2, the Project's baseline VMT per employee is 13.80 and cumulative VMT per employee is 13.37.

TABLE 2: PROJECT VMT PER EMPLOYEE

	Base Year (2016)	Cumulative Year (2040)	Baseline (2022)
Employees	252	252	252
VMT	3,512	3,370	3,477
VMT Per Employee	13.94	13.37	13.80

[4] Table II-B of the SCAG Employment Density Study.

[5] CEQA Guidelines Section 15064.3, subdivision (a) states "For purposes of this section "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project". The OPR's Technical Advisory indicates that, although heavy truck traffic can be included for analysis convenience, the provided analysis requirements are specific to passenger-vehicles and light duty trucks. While it may be appropriate to consider heavy vehicle traffic (HDT) if directed by the lead agency, it is generally understood that Interstate commerce and related heavy vehicle traffic are regulated by the Federal government as it relates to commerce. Irrespective of this and considering that the end-user may not be known at this time, it is reasonable to assume that the ultimate end user will select locations, at least in part, as to how it effects their transportation costs. Accordingly, it is reasonable to assume that industrial buildings are often located in a manner to reduce VMT given that it is in the interest of the business. In most cases, Consistent with other CEQA technical studies, HDT VMT will be reflected in other applicable technical studies (e.g. Air Quality Impact Analysis, Greenhouse Gas Analysis etc.

PROJECT COMPARISON TO SIGNIFICANCE THRESHOLD

Table 3 illustrates the comparison between Project's baseline and cumulative VMT per employee to the City's impact threshold. SBCTA provides published VMT values for its member agencies for the baseline County of San Bernardino, which is 16.9 VMT per employee.

TABLE 3: PROJECT VMT PER EMPLOYEE COMPARISON

	Baseline	Cumulative
Impact Threshold	16.9	16.9
Project	13.80	13.37
Percent Change	-18.34%	-20.89%
Potentially Significant?	No	No

Project generated VMT per employee would not exceed the City's impact threshold for both baseline and cumulative conditions, therefore, the Project's impact to VMT is less than significant.

PROJECT'S CUMULATIVE EFFECT ON VMT

The City Guidelines consistent with the Technical Advisory states that cumulative impacts on VMT "… metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency (as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impact that utilize plan compliance as a threshold of significance." The Project is consistent with the City's underlying General Plan land use assumptions and was found to have a less than significant impact at the project level. Therefore, the Project is also considered to be less than significant under cumulative conditions.

CONCLUSION

In summary, the Project did not meet any of the City's described screening criteria and, as required by City guidelines, a project level VMT analysis was performed. The Project level VMT analysis determined that VMT generated per employee did not exceed the City's impact threshold. The Project's VMT impacts, therefore, are presumed to be less than significant.

If you have any questions, please contact me directly at aso@urbanxroads.com.

Respectfully submitted,

URBAN CROSSROADS, INC.

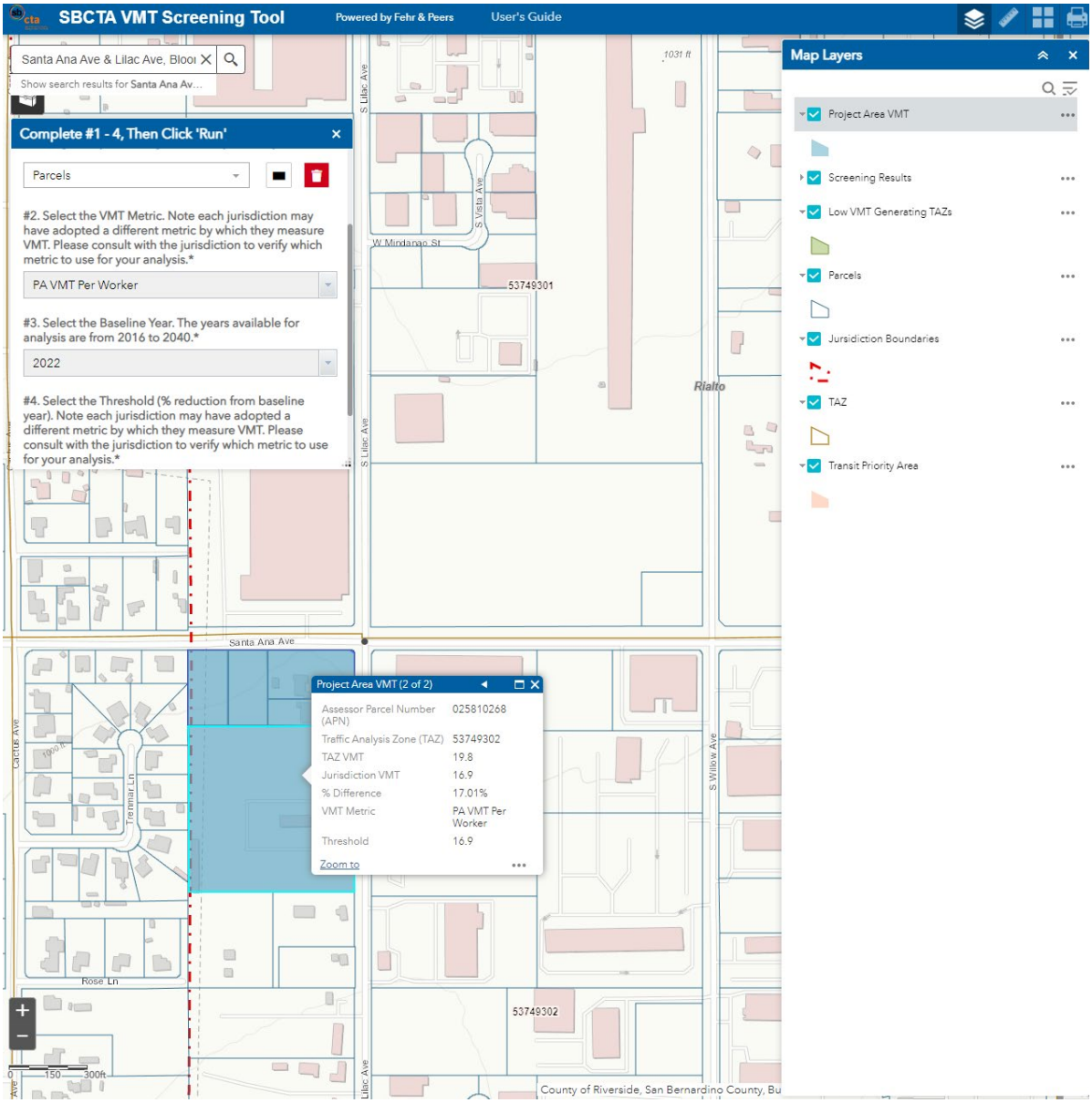


Alexander So
Senior Associate

REFERENCES

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SBCTA VMT Screening Tool
Powered by Fehr & Peers
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Santa Ana Ave & Lilac Ave, Bloo
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Complete #1 - 4, Then Click 'Run'
Parcels
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Transit Priority Area
Project Area VMT (2 of 2)
Assessor Parcel Number (APN) 025810268
Traffic Analysis Zone (TAZ) 53749302
TAZ VMT 19.8
Jurisdiction VMT 16.9
% Difference 17.01%
VMT Metric PA VMT Per Worker
Threshold 16.9
Zoom to
S Lilac Ave
S Vista Ave
W Mindanao St
53749301
Rialto
Santa Ana Ave
Cactus Ave
Tremmar Ln
Rose Ln
S Willow Ave
53749302
County of Riverside, San Bernardino County, Bu
0 150 300ft

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I.2 - Vehicle Miles Traveled Analysis

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URBAN | CROSSROADS

July 25, 2022

Mr. Jason Brandman
FirstCarbon Solutions
250 Commerce, Suite 250
Irvine, CA 92602

LILAC AVENUE AND SANTA ANA AVENUE WAREHOUSE VEHICLE MILES TRAVELED (VMT) ANALYSIS

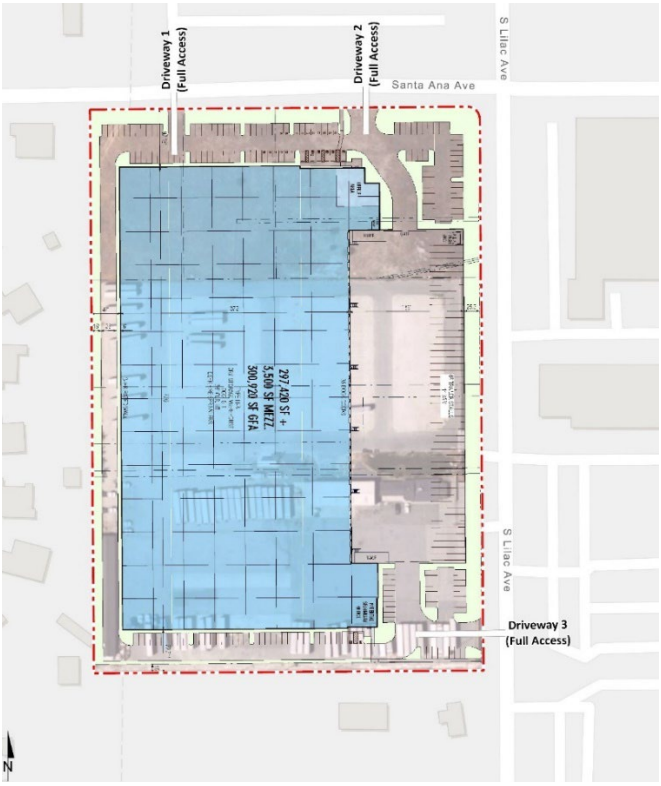
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If you have any questions, please contact me directly at aso@urbanxroads.com.

Respectfully submitted,

URBAN CROSSROADS, INC.

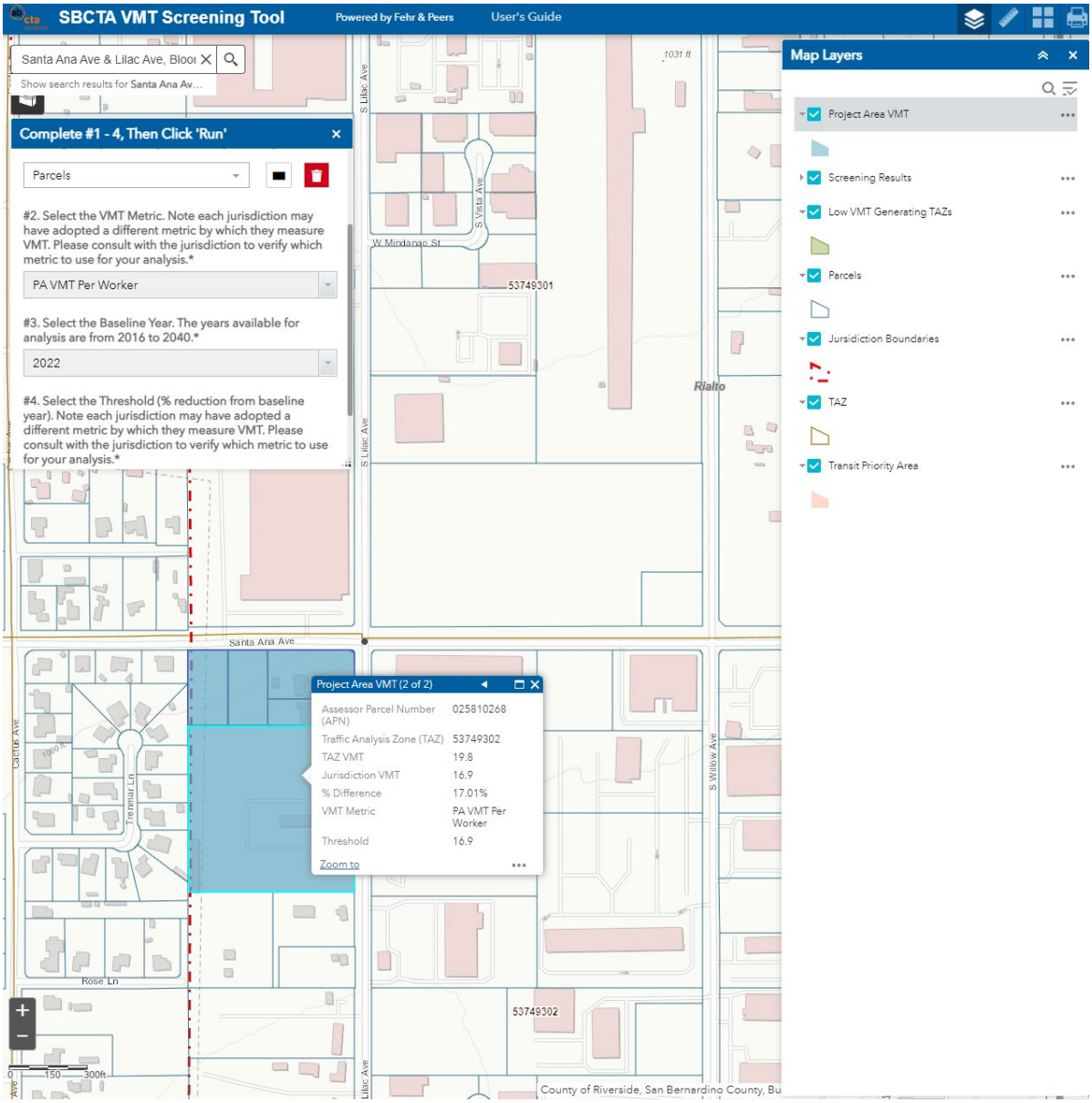


Alexander So
Senior Associate

REFERENCES

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Traffic Analysis Zone (TAZ) 53749302
TAZ VMT 19.8
Jurisdiction VMT 16.9
% Difference 17.01%
VMT Metric PA VMT Per Worker
Threshold 16.9
Zoom to
53749301
53749302
Rialto
Santa Ana Ave
S Lilac Ave
S Vista Ave
W Mindanao St
Cactus Ave
Tremmar Ln
Rose Ln
S Willow Ave
County of Riverside, San Bernardino County, Bu