

TRAFFIC IMPACT STUDY FOR

ANGELUS BLOCK CO., INC. PROPOSED MANUFACTURING FACILITY

DATE:

September 6, 2021

LOCATION:

Rialto, California

PREPARED FOR:

City of Rialto, California

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A. Introduction

A.1. Purpose of the TIA and Study Objectives

This Traffic Impact Analysis has been prepared to address the traffic-related impacts of the proposed Angelus Block Co. manufacturing facility in the City of Rialto.

This traffic study has been conducted in accordance with the City of Rialto's *Traffic Impact Analysis Report Guidelines and Requirements* (December 2013), and in accordance with the San Bernardino County Transportation Authority (SBCTA) Congestion Management Program (CMP). A scoping agreement with the City of Rialto is included in Appendix A.

This report includes a description of existing traffic conditions in the surrounding area, estimated project trip generation and distribution, future traffic growth, and an assessment of project-related impacts on the roadway system. Where necessary, circulation system improvements have been identified to achieve acceptable intersection operation in the vicinity of the project.

This project will be evaluated for the following conditions:

- Existing Conditions 2020
- Opening Year 2022
- Opening Year 2022 Plus Project
- Opening Year 2022 Cumulative
- Opening Year 2022 Cumulative Plus Project

A.2. Site Plan Location and Study Area

The proposed site is located east of S Riverside Avenue and north of Agua Mansa Road in the southern part of Rialto. The site is located approximately 1.5 miles south of Interstate 10 (I-10). Land use in the area is primarily industrial and manufacturing within the study area. Figure 1 on the next page shows the site location relative to the nearby transportation network. A stand-alone figure is included in the Appendix B.

A.3. Development Project Identification

Per the site plan dated 02/10/2021, the parcels proposed for development are as follows:

- Parcel 0260-061-67-0000
- Parcel 0260-061-41-0000
- Parcel 0260-061-42-0000

A.4. Development Project Description

The site is located within the Agua Mansa Specific Plan. The industrial corridor is 4,285 acres, located south of I-10 and west of I-215 on the western bank of the Santa Ana River. The corridor is approved for a variety of land uses, including industrial, agricultural, and residential.

Figure 1. Vicinity Map



The proposed site is located on the 8th subset within the Agua Mansa Specific Plan which is consisted of primarily general industry land-use with minimal residential. The project will involve the construction of a manufacturing plant building with 135,581 square feet, an office building with 10,018 square feet, a storage warehouse with 14,160 square feet, a mechanical shop with 7,200 square feet and a metal canopy with 21,534 square feet. The total area of these site components is 188,493 square feet. A copy of the site plan is provided on Figure 2. A full plan sheet is included in the Appendix C.

Access to the site is provided via a cul-de-sac at the end of Fortuna Way. There are two one-way driveways spaced out within this cul-de-sac: one for entering and one for exiting. A secondary entrance is located at the end of Singleton Drive at the southern portion of the proposed site. This entrance is dedicated to construction vehicles and will not be used for daily operations once construction of the site is complete.

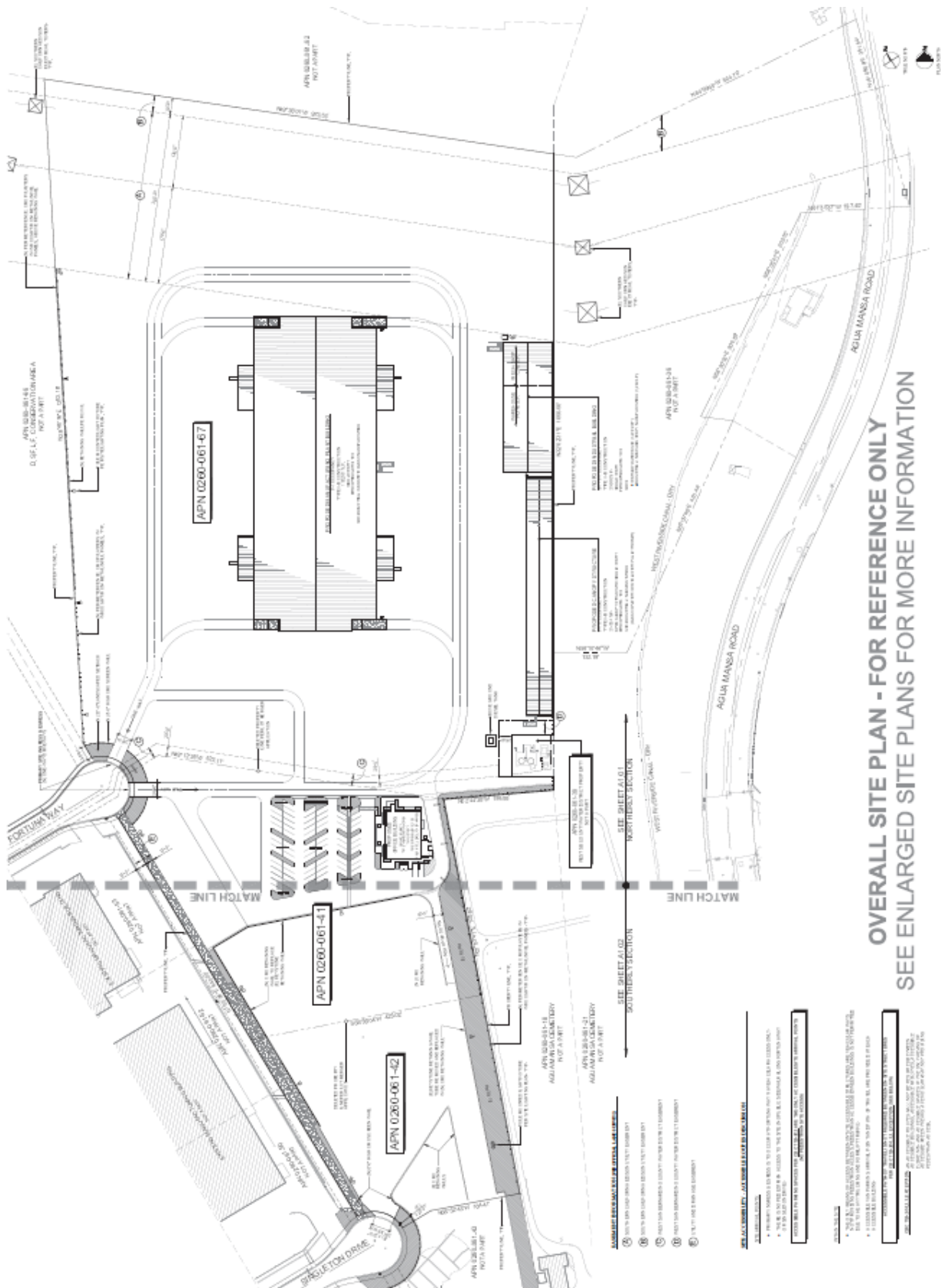
The proposed site is expected to be completed in 2022 in a single phase. The location of the site as well as the study area is located with the City of Rialto and San Bernardino County. The site is also located within the sphere of influence of, or 1-mile from, the City of Colton and the City of Jurupa Valley.

A.5. Proposed Site Operations

The operation of the site includes the manufacturing of concrete blocks. Raw materials arrive in trucks (i.e., cement, sand) and are unloaded into the proposed manufacturing plant building. The raw

materials are mixed accordingly and poured into block forms to cure inside this building. Once curing is complete, the blocks are either purchased and hauled off-site or moved to the canopy structure for secondary processing. Secondary processing includes some customization of the concrete blocks before they are either stored or purchased. The warehouse building, as designated in the plans, stores materials that are used throughout the site. The mechanical shop is where machinery is maintained and stored when not in use (i.e., forklifts). The office building on site supports the use of the rest of the site. It would house administrative offices for the operations as well as facilitate the selling of the final product.

Figure 2. Site Plan



A.6. Analysis Methodology

A.6.1. Intersection Analysis – HCM Methodology

Peak hour intersection operations at signalized and unsignalized intersections were evaluated using the methods prescribed in the Highway Capacity Manual (HCM) 6th Edition, consistent with the requirements of the City of Rialto *Traffic Impact Analysis Report Guidelines and Requirements* and the San Bernardino County CMP.

The City of Rialto *Traffic Impact Analysis Report Guidelines and Requirements* requires analysis of traffic operations to be based on the vehicular delay methodologies of the Highway Capacity Manual (HCM). The intersection analysis for the proposed project has been accomplished using the Synchro 11 software program and using specified input parameters outlined in the City's *Traffic Impact Analysis Report Guidelines and Requirements*.

Per the HCM Methodology, Level of Service (LOS) for signalized intersections is defined in terms of average vehicle delay. Specifically, LOS criteria are stated in terms of the average control delay per vehicle for the peak 15-min period within the hour analyzed. Table 1 on the following pages provide a description of the operating characteristics of each Level of Service. Tables 2 defines the LOS in terms of average seconds of delay for signalized and unsignalized intersections.

A.6.2. Level of Service Standards and Measure of Significance.

The City of Rialto *Traffic Impact Analysis Report Guidelines and Requirements* references the General Plan minimum Level of Service standards. According to Policy 4-1.20 of the General Plan document, city streets with signalized intersections are required to operate at LOS D or better during peak hours. The one exception being Riverside Avenue which can operate at LOS E, Riverside Avenue is part of this study. Policy 4-1.21 of the General Plan document states that unsignalized intersections operate with the average delay being 120 seconds or less during the peak hours. The City's *Traffic Impact Analysis Report Guidelines and Requirements* requires a new development to mitigate impacts that cause the Level of Service to fall below LOS D (E for Riverside Avenue), 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 second

Table 1: Level of Service Definitions, Highway Capacity Manual (HCM), 6th Edition

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

Table 2: Level of Service Criteria, Highway Capacity Manual (HCM), 6th Edition

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS		
Level of Service	Signalized Intersection ¹	Unsignalized Intersection ²
A	≤ 10	0-10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

¹Source: Highway Capacity Manual (HCM 6th Edition), Exhibit 19-8, Average Delay in Seconds/Vehicle

²Source: Highway Capacity Manual (HCM 6th Edition), Exhibit 20-2, Average Delay in Seconds/Vehicle

A.6.1. Roadway Segment Analysis

The roadway segment analysis will address the project's impact on daily operating conditions on roadway segments within the project vicinity. Roadway segments are evaluated by comparing the daily traffic volume on the roadway segment to the daily capacity of that segment, to determine the volume-to-capacity (v/c) ratio. Daily capacity is based on the roadway classification, as shown in Table 3.

Table 3: Level of Service Criteria, Segments

CITY OF RIALTO CAPACITY ¹				
Roadway Capacity	No. of Lanes	Two-Way Traffic Volume (ADT) ²		
		Service Level C	Service Level D	Service Level E
Local	2	2,500-2,799	2,800-3,099	3,100 +
Collector (60' or 64')	2	9,900-11,199	11,200-12,499	12,500 +
Industrial (45')	2	9,900-11,199	11,200-12,499	12,500 +
Arterial ³	2	14,400-16,199	16,200-17,999	18,000 +
Secondary Highway	4	16,900-19,399	19,400-21,999	22,000 +
Modified Arterial (100')	4	26,200-29,599	29,600-32,999	33,000 +
Arterial (120')	6	38,700-44,099	44,100-49,499	49,500 +

¹All capacity figures are based on optimum conditions and are intended as guidelines for planning purposes only

²Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables.

³Two-lane roads designated as future arterials that conform to arterial design standards for vertical and horizontal alignments are analyzed as arterials.

Source: City of Rialto Traffic Impact Analysis Report Guidelines and Requirements (2013)

Based on the General Plan document, all segments must operate at LOS D or better. The exception to that rule is Riverside Avenue between the Metrolink Tracks to the southern border of the City of Rialto. Between these points, Riverside Avenue can operate at LOS E. The table above does not include an upper limit of capacity for a roadway segment to operate at LOS E. As a result, this limit was extrapolated by calculating the difference between the other limits of each roadway class. The study segments include modified arterial (100') and arterial (120'). The difference between LOS C and D was calculated and that value was applied to the lower LOS limit. Arterial (120') changes by 5,400 vehicles, which means the upper threshold of LOS E is **54,900**. Modified Arterial (100') changes by 3,400 vehicles, which means the upper threshold for LOS E is **36,400**. These values will be used as the capacity of the Riverside Avenue segments per the General Plan document.

B. Area Conditions

B.1. Identify Study Area and Intersections

The study includes a discussion of existing (2020) traffic volumes, future (2022) traffic volumes, trip generation, directional distribution, and the impacts of new traffic at the study intersections.

The scope of this traffic impact analysis was coordinated with staff from the City of Rialto. This study includes analysis of the Existing Conditions, Existing Plus Growth (also known as Opening Year) Conditions, Opening Year Plus Project Trips, Opening Year Plus Cumulative Growth (trips associated with developments to be constructed between the date of this report and project completion), and finally Opening Year Plus Cumulative Growth Plus Project Trips for the following locations:

1. S Riverside Avenue at W Valley Boulevard
2. S Riverside Avenue at I-10 WB ramps
3. S Riverside Avenue at I-10 EB ramps
4. S Riverside Avenue at Slover Avenue
5. S Riverside Avenue at Santa Ana Avenue
6. S Riverside Avenue at Industrial Drive
7. S Riverside Avenue at Jurupa Avenue
8. S Riverside Avenue at Resource Drive/Industrial Drive
9. S Riverside Avenue at Singleton Drive
10. S Riverside Avenue at Agua Mansa Road
11. Industrial Drive at Fortuna Way
12. Resource Drive at Enterprise Drive
13. S Riverside Avenue: I-10 WB ramps to I-10 EB ramps
14. S Riverside Avenue: I-10 EB ramps to Slover Avenue
15. S Riverside Avenue: Slover Avenue to Santa Ana Avenue
16. S Riverside Avenue: Santa Ana Avenue to Industrial Drive
17. S Riverside Avenue: Resource Drive to Agua Mansa Road

The report summarizes the data collected, background and projected traffic at the study locations, analysis of traffic impacts including levels of service (LOS), assessment of the site entrance, and conclusions/recommendations from the analysis.

Appendix C includes a copy of the site development concept plan.

B.2. Description of Existing Roads, Traffic Controls, and Intersection Geometries

The site will be accessed primarily via I-10 approximately 1.5 miles north of the site. I-10 serves as the primary east-west freeway and connects the site eastward toward San Bernardino and westward toward Los Angeles. Further description of all roadways within the study area are summarized below.

Existing lane configuration and intersection control at the study intersections was confirmed in a site visit conducted in April 2020. Figure 3 summarizes both lane configurations and intersection control as verified in April 2020. This information was then used to build a model to conduct the operational analysis of the study area.

Interstate 10 (I-10) Ramps are exit and entrance ramps to I-10 an east-west freeway that has a posted speed limit of 70 MPH. The entrance ramps are metered and have one high occupancy vehicle (HOV) lane and two general purpose lanes at the intersection with S Riverside Ave. The exit ramps have three general purpose lanes at the intersection of S Riverside Ave.

South Riverside Avenue is a north-south road designated as a Modified Major Arterial II as classified by the General Plan for the City of Rialto (December 2010). A modified Major Arterial II has three lanes of travel in each direction with medians to accommodate the heavy traffic flow near freeway intersections, intersections 1 and 2. Near the project site S Riverside has two lanes of travel in each direction with a two-way left-turn lane (TWLTL) median. South of Santa Ana Road the posted speed is 55 MPH, north of Santa Ana Road the posted speed limit is 50 MPH. S Riverside Avenue connects to Interstate 10, State Route 66, and State Route 210 to the north of the project site. To the south S Riverside Ave changes to Main Street. S Riverside Avenue is also classified as a Terminal Access truck route.

Agua Mansa Road is a northeast-southwest road designated as a Major Arterial by the General Plan for the City of Rialto (December 2010). A Major Arterial has at least two lanes of travel in each direction and parking lanes. Near the project site Agua Mansa Road has two lanes heading westbound and one lane heading eastbound. It has a posted speed limit of 45 MPH.

Slover Avenue is an east-west road designated as a Major Arterial by the General Plan for the City of Rialto (December 2010). Near the project site Slover Avenue has two lanes of travel in each direction with a two-way left-turn lane (TWLTL) to the west of S Riverside Avenue and two lanes of travel westbound and one lane of travel eastbound to the east of S Riverside Ave. It has a posted speed limit of 45 MPH. Slover Ave is a Terminal Access truck route.

Santa Ana Avenue is an east-west road designated as a Secondary Arterial to the west of S Riverside Ave and a Collector Street to the east. Santa Ana Avenue has one lane of travel in each direction. It has a posted speed limit of 40 MPH. Santa Ana Avenue is a Terminal Access truck route.

Industrial Drive is a north-south, approximately 0.7-mile, local street. Industrial Drive has no posted speed limit. For operational analysis, it is assumed to be 25 MPH. Industrial Drive is the connection

from the project site to S Riverside Ave.

Fortuna Way is a 0.1-mile-long local road that serves as the only driveway to the project site connecting to Industrial Drive. There is no posted speed limit; therefore, for operational analysis, it is assumed to be 25 MPH.

Resource Drive is an approximately 0.4-mile-long local road. There is no posted speed limit; therefore, for our analysis it is assumed to be 25 MPH.

Enterprise Drive is an approximately 0.3-mile-long local road. There is no posted speed limit; therefore, for our analysis it is assumed to be 25 MPH.

B.3. Existing Traffic Volumes

Due to the state-mandated lock-down starting in March 2020 (implemented as a result of the COVID-19 pandemic), traffic patterns have been irregular near the proposed site. Obtaining new counts for what the traffic engineering industry constitutes as “normal” conditions has not been feasible. Because new traffic counts were not feasible, historic traffic counts taken before March of 2020 were obtained from the City of Rialto as well as from local traffic counting companies. All historic counts obtained are from 2018 or 2019. To establish an existing base year 2020 traffic network, a 2% growth rate per year was applied to the historic counts. All counts obtained are included in Appendix D.

Of the 12 intersections in the study area, historic counts were obtained for 9 of them. Figure 4 shows the lane configuration for the 12 intersections. Traffic counts for Industrial Drive at Fortuna Way, S Riverside Avenue at Singleton Drive, and Resource Drive at Enterprise Drive were not available. Counts associated with this intersection were estimated using the adjacent intersection approach and receiving volumes as well as an estimate of trip generation based adjacent land uses.

Turning movement counts from 2018 were obtained for the following study area intersections:

- S Riverside Avenue at I-10 WB ramps
- S Riverside Avenue at I-10 EB ramps
- S Riverside Avenue at Slover Avenue
- S Riverside Avenue at Santa Ana Avenue
- S Riverside Avenue at Industrial Drive
- S Riverside Avenue at Jurupa Avenue
- S Riverside Avenue at Resource Drive/Industrial Drive

Turning movement counts from 2019 were obtained for the following study area intersection:

- S Riverside Avenue at Agua Mansa Road

Turning movement counts from 2020 were obtained for the following study area intersection:

- S Riverside Avenue at W Valley Boulevard

Figure 3. Study Intersections

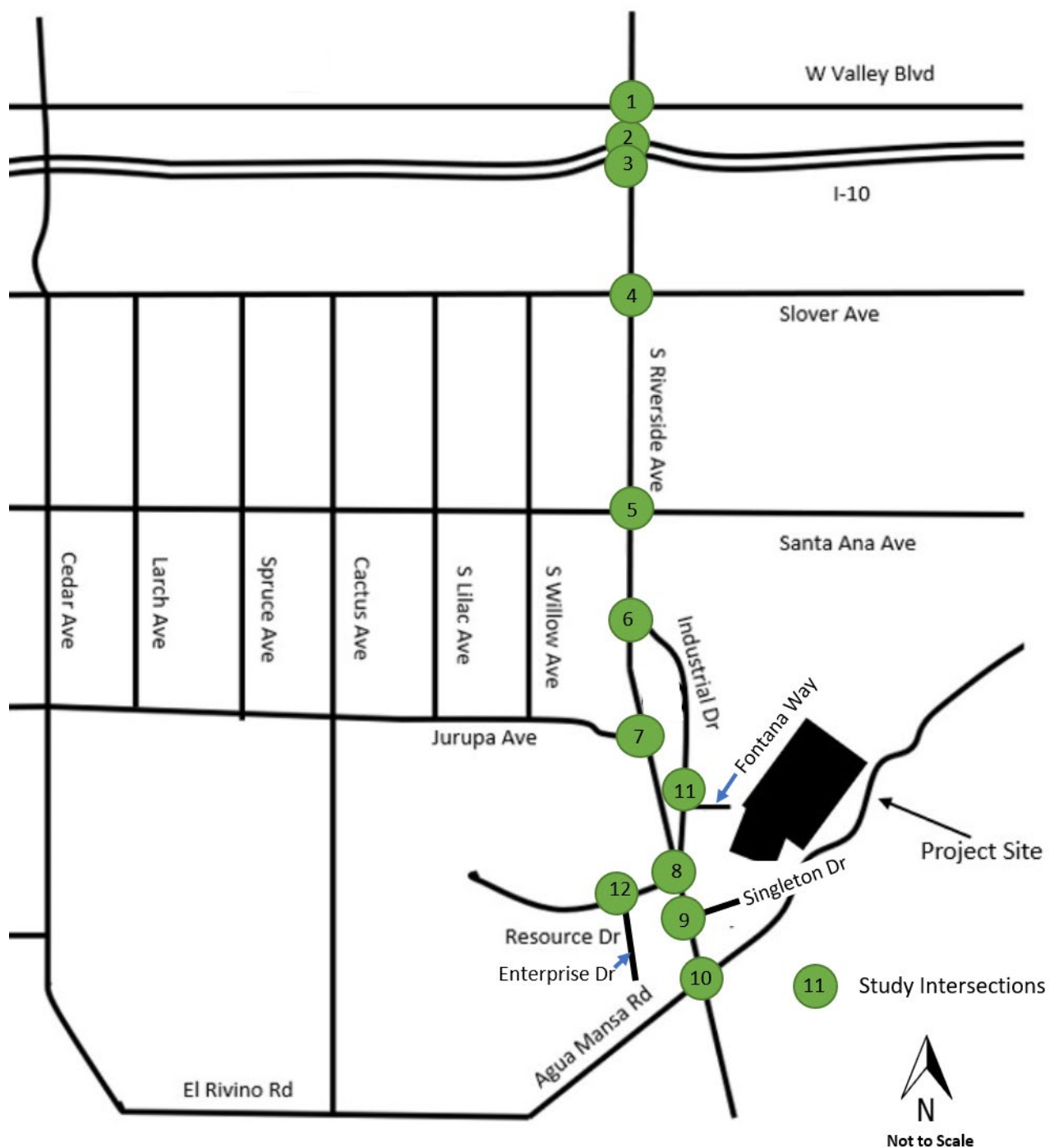
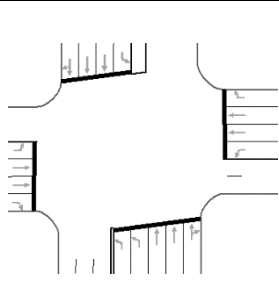
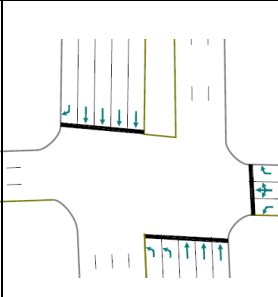
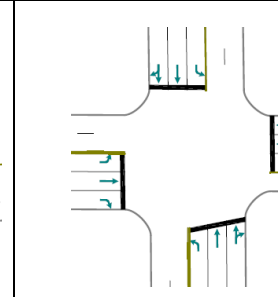
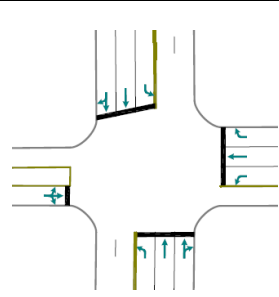
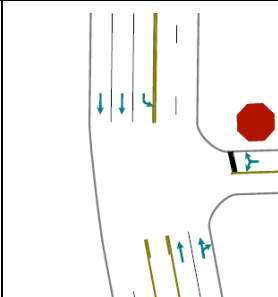
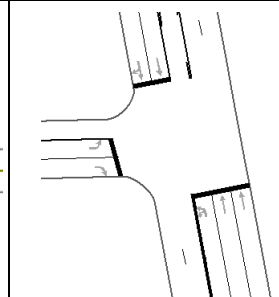
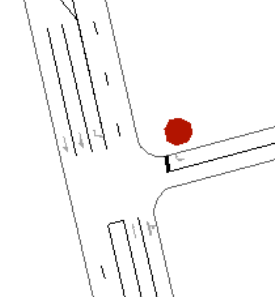
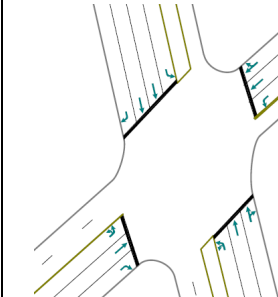
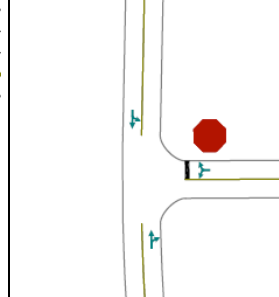
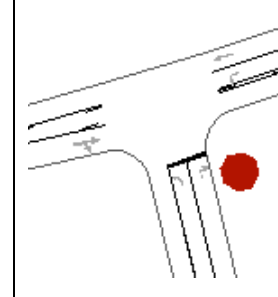


Figure 4. Existing Lane Configuration and Traffic Control

1. S Riverside Ave at W Valley Blvd	2. S Riverside Ave at I-10 WB Ramps	3. S Riverside Ave at I-10 EB Ramps	4. S Riverside Ave at Slover Ave
			
5. S Riverside Ave at Santa Ana Ave	6. S Riverside Ave at Industrial Dr	7. S Riverside Ave at Jurupa Ave	8. S Riverside Ave at Resource Dr/Industrial Dr
			
9. S Riverside at Singleton Dr	10. S Riverside Ave at Agua Mansa Rd	11. Industrial Dr at Fortuna Way	12. Resource Dr at Enterprise Dr
			

Of the five segments included in the segment analysis, historic traffic counts were obtained for two segments, both in 2018:

- S Riverside Avenue: I-10 EB ramps to Slover Avenue
- S Riverside Avenue: Slover Avenue to Santa Ana Avenue

Segment annual daily traffic (ADT) for the remaining three segments was estimated by calculating the k-factors for nearby segments. The k-factor is the ratio of peak hour traffic to the ADT of the same segment. This k-factor was then applied to the peak hour volumes of the unknown segments (from the turning movement counts) to obtain an estimated ADT.

Because the site is considered a “truck-intensive” land-use per the City of Rialto *Traffic Impact Analysis Report Guidelines and Requirements*, all existing traffic counts were converted to passenger car equivalent (PCE) trips. This process is used to incorporate heavy truck usage into the operational analysis of the transportation network. Truck classification information is needed to compute the PCE volumes. Due to the data constraints, only one segment included vehicle classifications for passenger vehicles and trucks. However, the intersection peak hour counts were classified by vehicle type. As a result, the total truck percentage and the average PCE factor was calculated for the adjacent intersections of each segment and averaged together to calculate a truck percentage and average PCE factor for each segment. The final PCE value was calculated using these averages. PCE values were developed with the City of Rialto *Traffic Impact Analysis Report Guidelines and Requirements* factors: 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+ axle trucks. PCE volume worksheets are provided in Appendix E.

The data from these counts help to establish an overall picture of the existing traffic conditions within the study area. Figure 5 presents the existing (2020) traffic volumes for these locations.

B.4. Existing Delay and Level of Service

B.4.1. Peak Hour Intersection Operating Conditions

Intersection Level of Service analysis was conducted for the AM and PM peak hours using the analysis procedures described previously in this report. The results of the intersection analysis for Existing Conditions are shown in Table 1. Synchro outputs of Existing Conditions intersection analysis worksheets are provided in Appendix F.

Table 4 indicates that all study intersections are currently operating at an acceptable Level of Service—LOS E for intersections along Riverside Avenue and LOS D for the two intersections not on Riverside Avenue.

B.4.1. Daily Roadway Segment Operating Conditions

Roadway Level of Service analysis was conducted based on the roadway capacities presented previously in this report. The results of the roadway analysis for Existing Conditions are shown in Table 5.

Table 5 indicates that the study roadway segments are currently operating at capacities above the acceptable Level of Service threshold. This means that in existing conditions, no roadway segments meet the General Plan Guidelines.

B.5. Transit Service

Transit service in Rialto, California is provided by OmniTrans transit lines, which serve various San Bernardino cities in the area. There are no bus stops within half a mile of the project site based on the transit map from the General Plan shown in Figure 6.

Figure 5. Existing (2020) Volumes

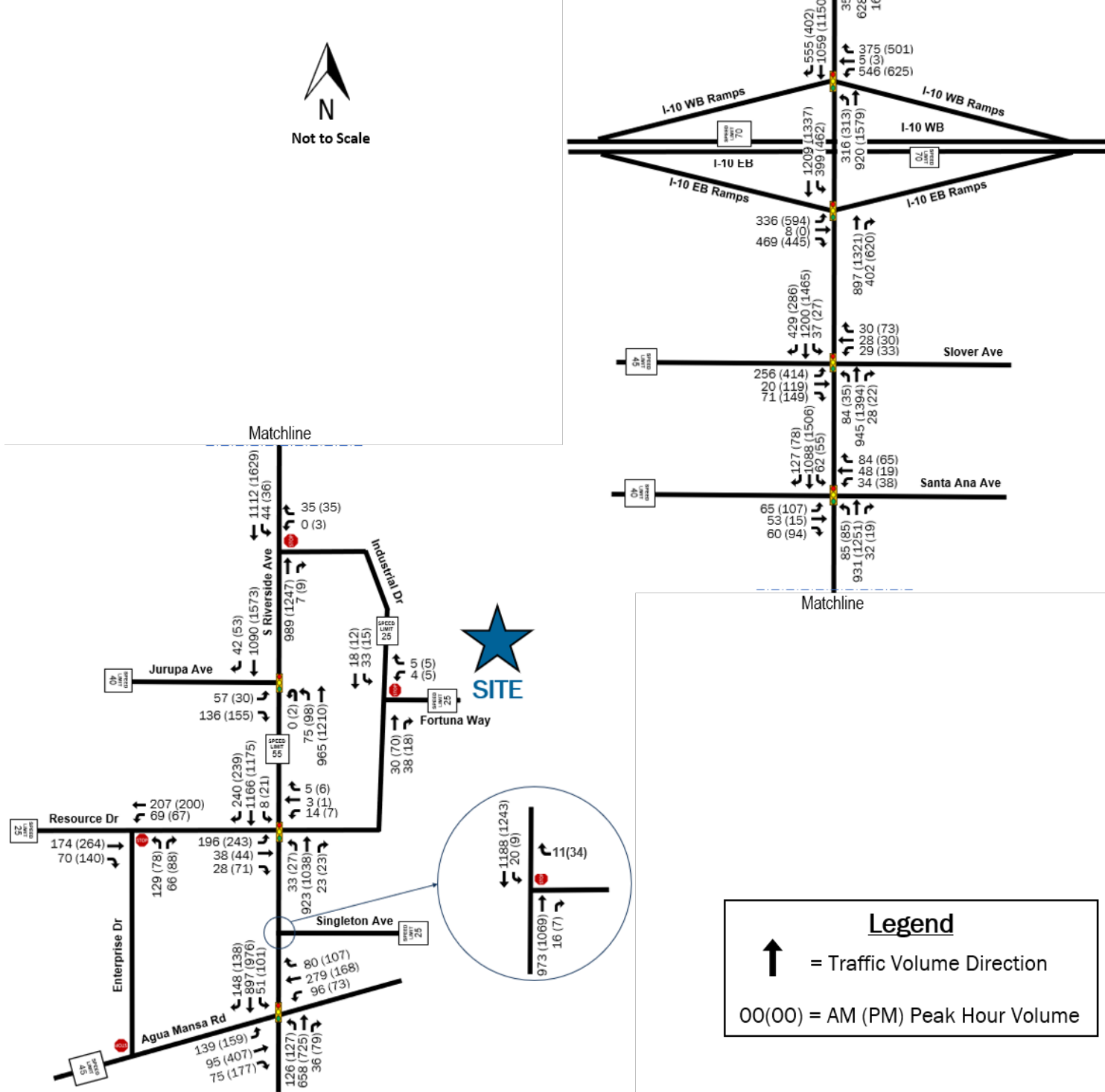


Table 4: Existing (2020) Peak Hour Intersection Operations

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	S Riverside Ave & W Valley Blvd	Signal	43.3	D	37.6	D
2	S Riverside Ave & I-10 WB Ramps	Signal	22.5	C	20.9	C
3	S Riverside Ave & I-10 EB Ramps	Signal	26.3	C	38.2	D
4	S Riverside Ave & Slover Ave	Signal	39.3	D	77.1	E
5	S Riverside Ave & Santa Ana Ave	Signal	23.3	C	32.4	C
6	S Riverside Ave & Industrial Dr	Stop Controlled	16.0	C	20.4	C
7	S Riverside Ave & Jurupa Ave	Signal	10.5	B	17.0	B
8	S Riverside Ave & Resource Dr/Industrial Dr	Signal	26.4	C	28.9	C
9	S Riverside Ave & Singleton Dr	Stop Controlled	12.7	B	13.8	B
10	S Riverside Ave & Agua Mansa Rd	Signal	26.6	C	41.9	D
11	Industrial Dr & Fortuna Way	Stop Controlled	9.5	A	9.6	A
12	Resource Dr & Enterprise Dr	Stop Controlled	14.6	B	14.4	B

Notes: BOLD and shaded values indicate intersections operating at LOS F

At signalized intersections, delay refers to the average control delay for the entire intersection, measured in seconds/vehicle

At stop-controlled intersections, delay refers to the average vehicle delay on the worst (highest delay) movement

Delay values are based on methodology outlines in the 6th Edition Highway Capacity Manual.

Table 5: Existing (2020) Roadway Segment Operations

Roadway	Segment	Current LOS E Capacity	Existing ADT in PCE	LOS E or better?
S Riverside Ave	I-10 WB ramps to I-10 EB ramps	54,900	59,410	No
	I-10 EB ramps to Slover Ave	36,400	56,753	No
	Slover Ave to Santa Ana Ave	36,400	51,250	No
	Santa Ana Ave to Industrial Dr	36,400	65,161	No
	Resource Dr to Agua Mansa Rd	36,400	53,143	No

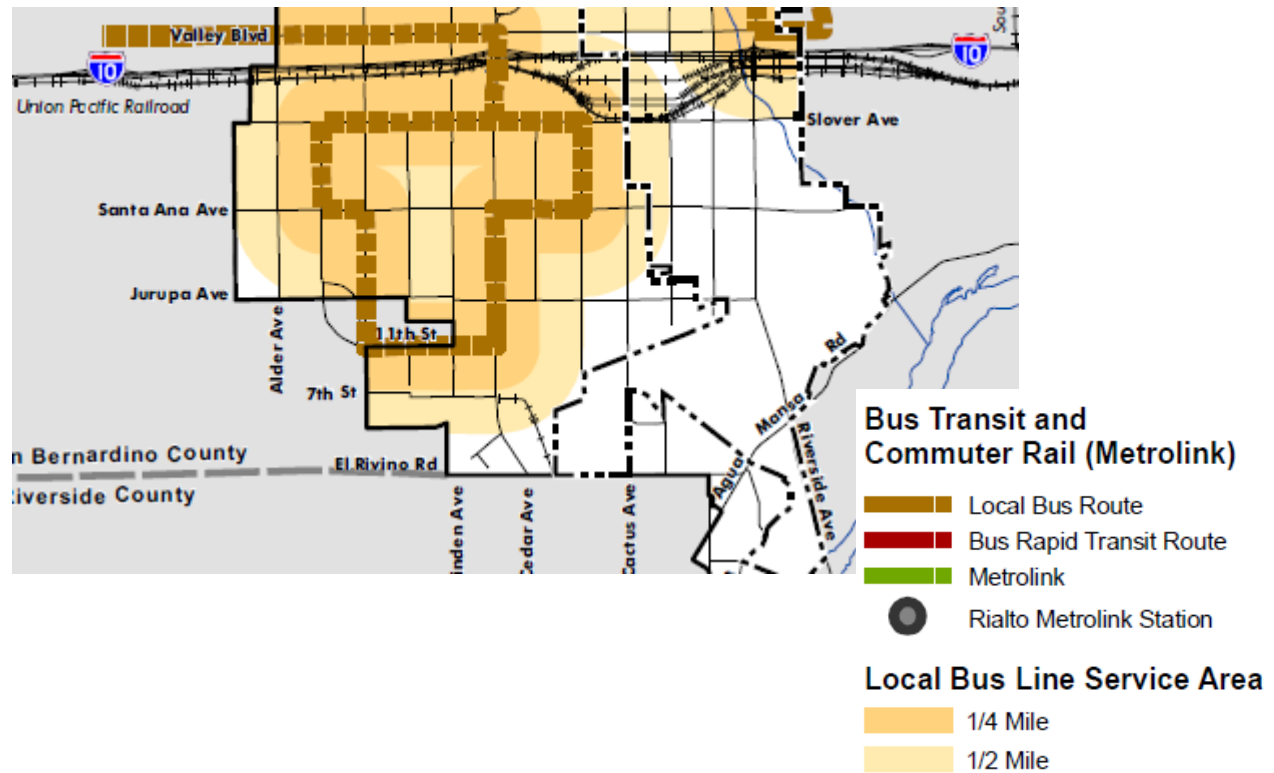
Notes: Daily roadway counts were collected in 2018. Counts were increased by 2%/year to bring the existing ADT to 2020.

LOS = Level of Service

ADT = Average Daily Traffic

PCE = Passenger Car Equivalent

Figure 6. Transit Service

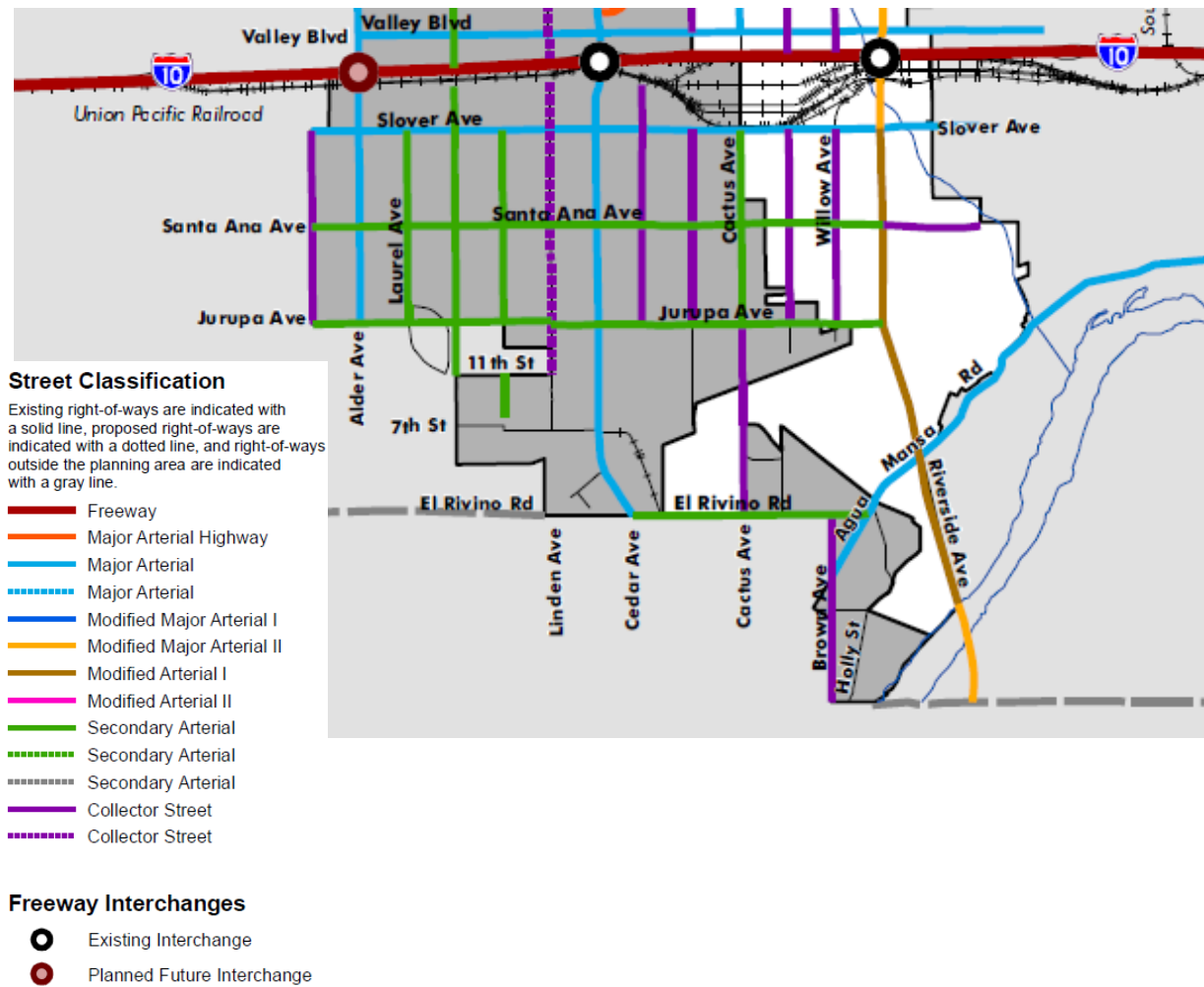


Source: City of Rialto General Plan Update (2010)

B.6. General Plan Circulation Element

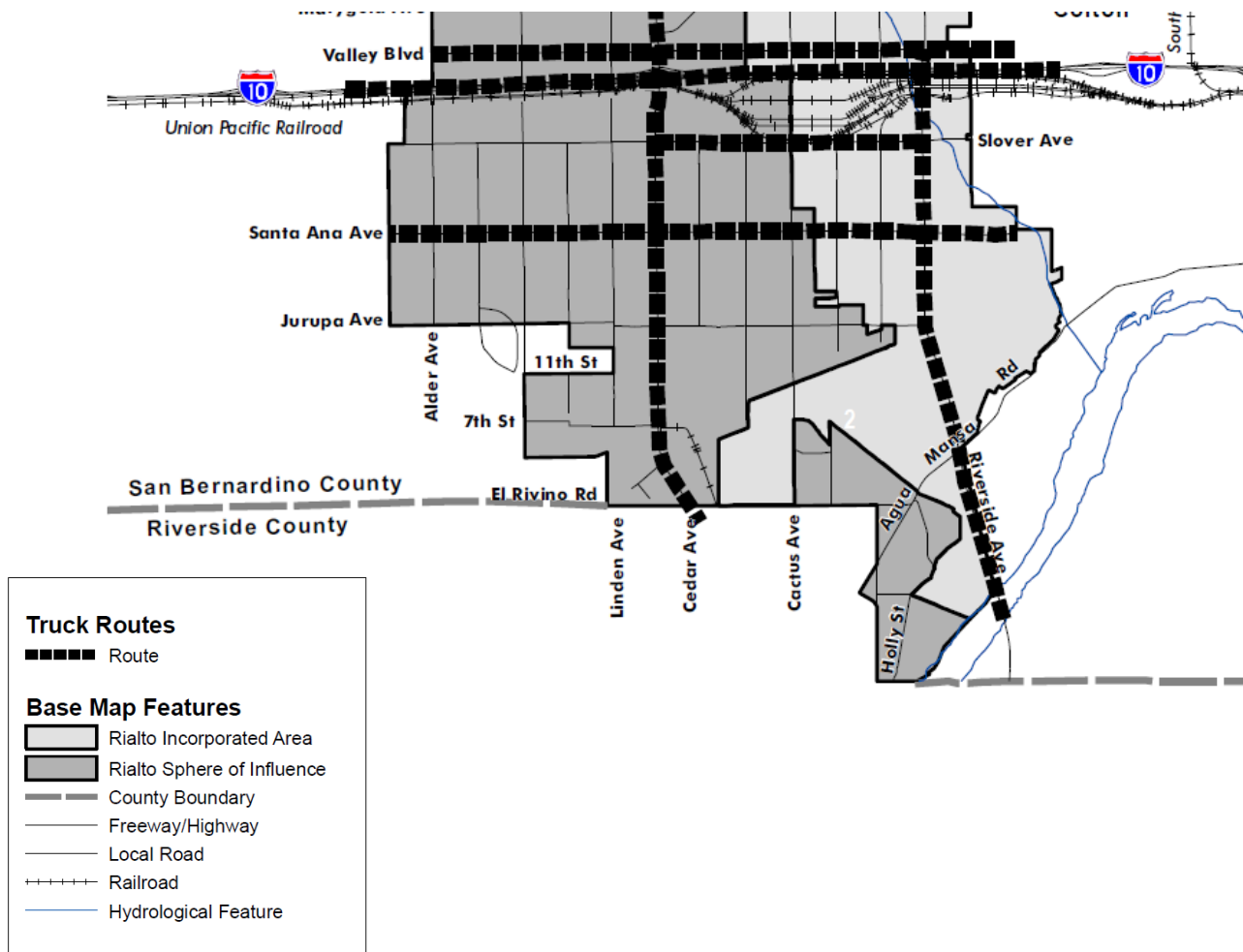
The Circulation Element refers to the General Plan for roadway designations for the project and the surrounding facility. The General Plan was approved in 2010. A copy of the Vehicular Circulation Plan is shown in Figure 7. Designated truck routes are shown in Figure 8. Project truck traffic is assumed to use the designated truck route on Riverside Avenue to access the freeway and beyond.

Figure 7. Vehicular Circulation Plan



Source: City of Rialto General Plan Update (2010)

Figure 8. Truck Routes



Source: City of Rialto General Plan Update (2010)

C. Projected Future Traffic

C.1. Project Traffic

C.1.1. Project Trip Generation

The trip generation of the site was estimated using the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition, 2017. The land use for "manufacturing" was selected as it best represents the use of the site. With this land use, the total daily trips as well as the peak hour trips are estimated. Because this site is considered a "truck intensive" land use, the project trips were converted into PCEs per the City of Rialto's *Traffic Impact Analysis Guidelines and Requirements*. Forty percent of the trips associated with this site are considered truck trips. The vehicle mix in the PCE calculation is consistent with the City of Rialto's specifications. Again, a factor of 1.5 was used for 2-axle vehicles, 2 for 3-axle vehicles, and 3.0 for 4+axle vehicles. Tables 6 and 7 summarize the project trip generation expected to and from the development per the ITE Trip Generation as well as the conversion of the trip generation into PCE values. Ultimately, the PCE values were used in analysis.

Table 6: Project Trip Generation

Land Use ¹		Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Generation Rates				4.006	0.475	0.142	0.617	0.206	0.465	0.671
Manufacturing		189,207 ²	KSF	758	90	27	117	39	88	127
Passenger Vehicles	60%			455	54	16	70	23	53	76
Trucks	40%			303	36	11	47	16	35	51

¹Source: ITE Trip Generation Manual, 10th Edition

²Site plan dated 2/2021 shows a total area of 188,493 SF of all manufacturing components. Quantity used in trip generation remains the same (a higher value) to match scope approved by City of Rialto.

Table 7: Project Trips in Passenger Car Equivalents (PCE)

Vehicle Type	Vehicle Mix ¹	Daily Vehicles	PCE Factor	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Passenger Vehicles	60%	455	1.0	455	54	16	70	23	53	76
2-Axle Trucks	0.8%	6	1.5	9	1	0	1	0	1	2
3-Axle Trucks	11.2%	85	2.0	170	20	6	26	9	20	28
4+ Axle Trucks	28.0%	212	3.0	637	76	23	98	33	74	107
Total Truck PCE Trips				816	97	29	126	42	95	137
Total Project PCE Trips				1,270	151	45	196	65	147	213

¹Source: City of Rialto Traffic Impact Analysis Report Guidelines and Requirements, December 2013

Notes: PCE = Passenger Car Equivalent

SF = Square Feet

While the ITE Trip Generation Manual can estimate the number of daily, AM, and PM trips based on building square footage, it is still an estimate. The specific site operations indicate that there will be

75 employees per day and 250 trucks serviced per day. By doubling these trips to represent both entering and exiting trips, the total daily trip generation for the site is 650 trips. Ultimately the ITE Trip Generation was used in analysis as it is the industry standard and a more conservative estimate.

For operational analysis, the development will generate a total of 196 PCE trips (151 trips entering and 45 trips exiting) during the AM peak hour, and a total of 213 trips (65 trips entering and 147 trips exiting) during the PM peak hour.

C.1.2. Trip Distribution and Assignment

Trip distribution assumptions for both passenger vehicles and trucks were developed by taking into account the proposed site use and the routes to and from the freeway for trucks as well as the land-use in the area around the study area. Both vehicular and truck distributions were coordinated with the City of Rialto staff. Separate distribution patterns for passenger vehicles are shown in Figure 9 and trip distribution for trucks are shown in Figure 10. Trip distribution percentages at each study intersection were applied to the project trip generation to determine project trips through each intersection. The project site peak hour trips at the study intersections are shown in Figure 11.

Figure 9. Project Trip Distribution – Passenger Cars

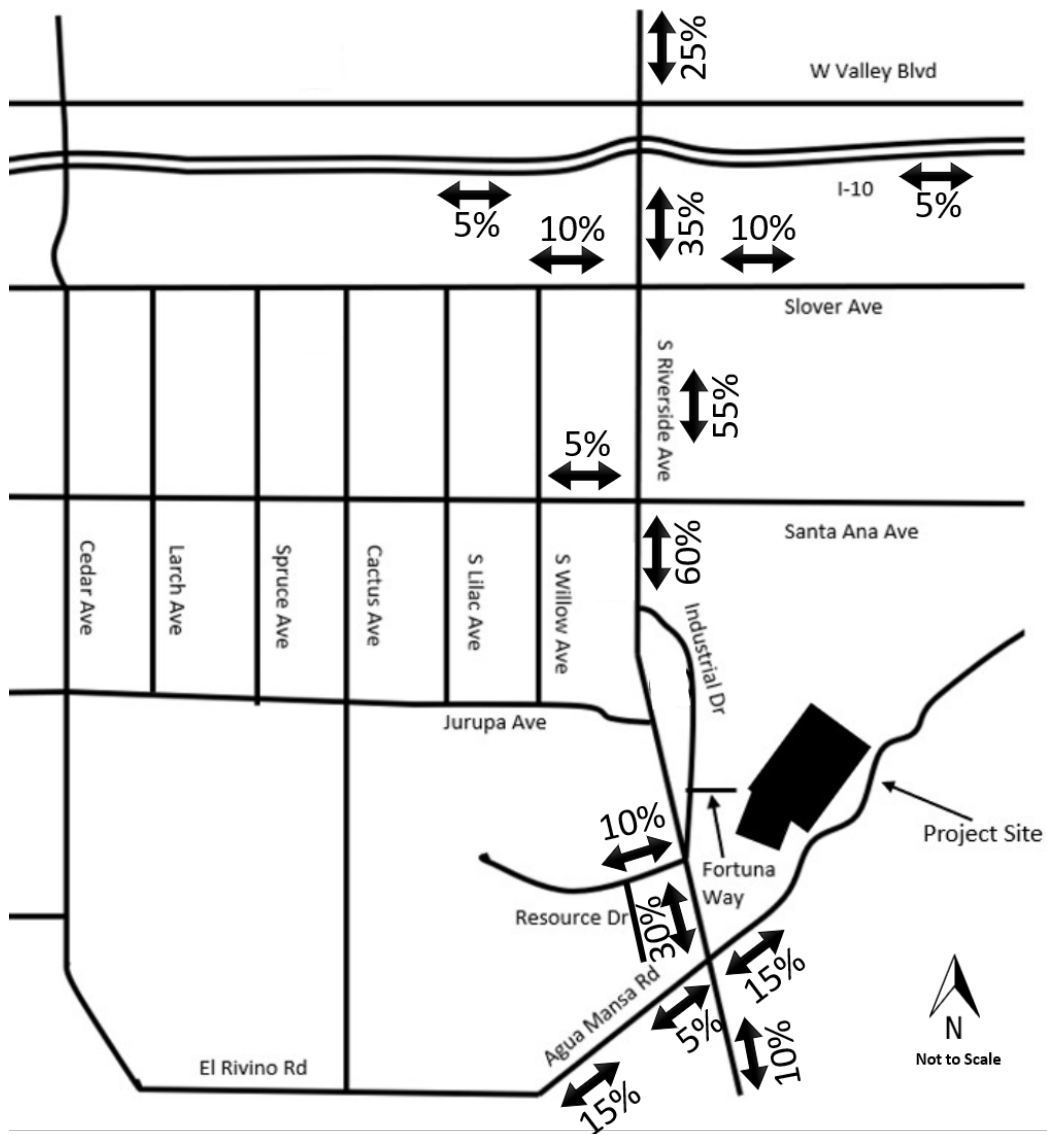


Figure 10. Project Trip Distribution – Trucks

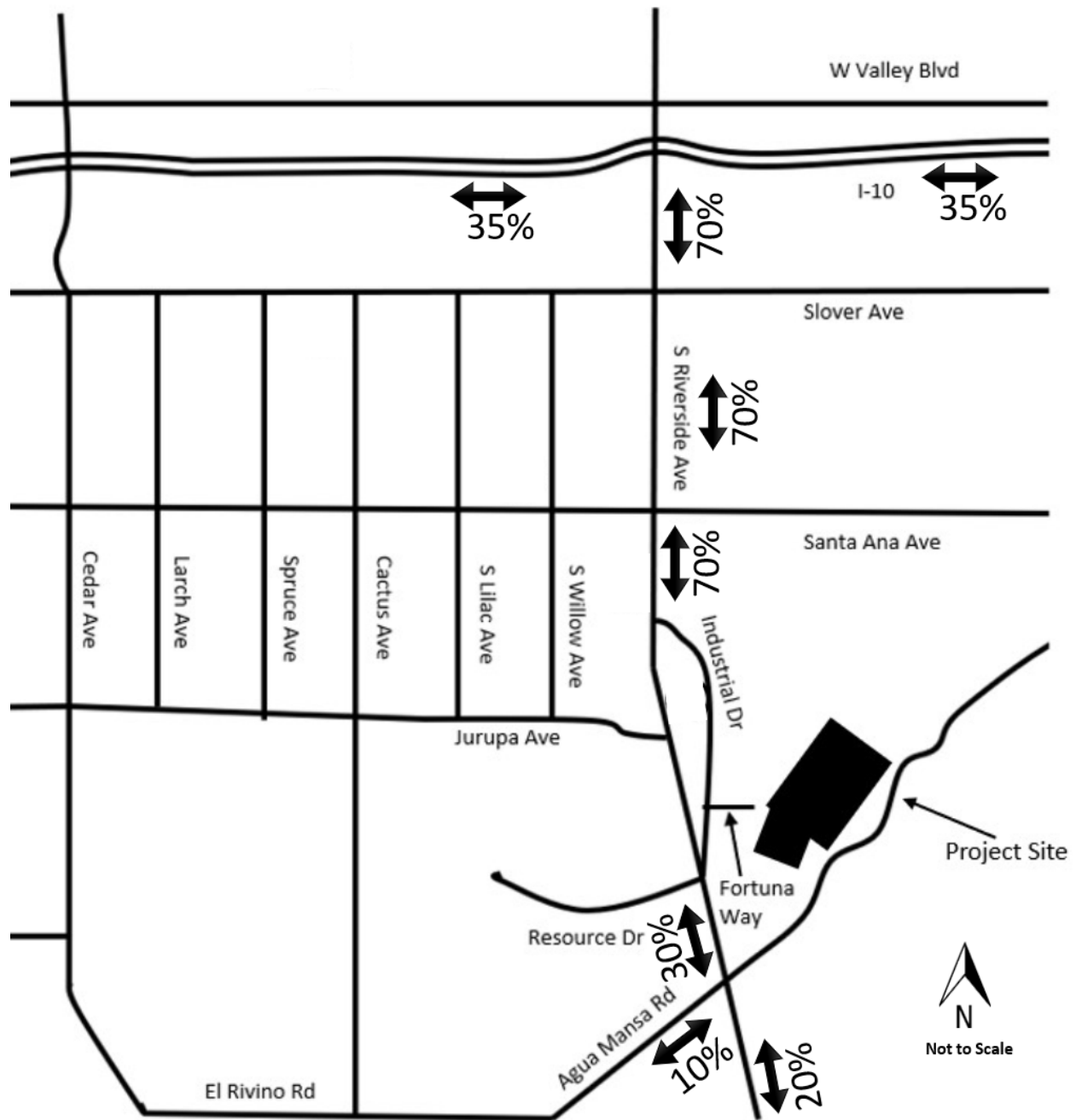
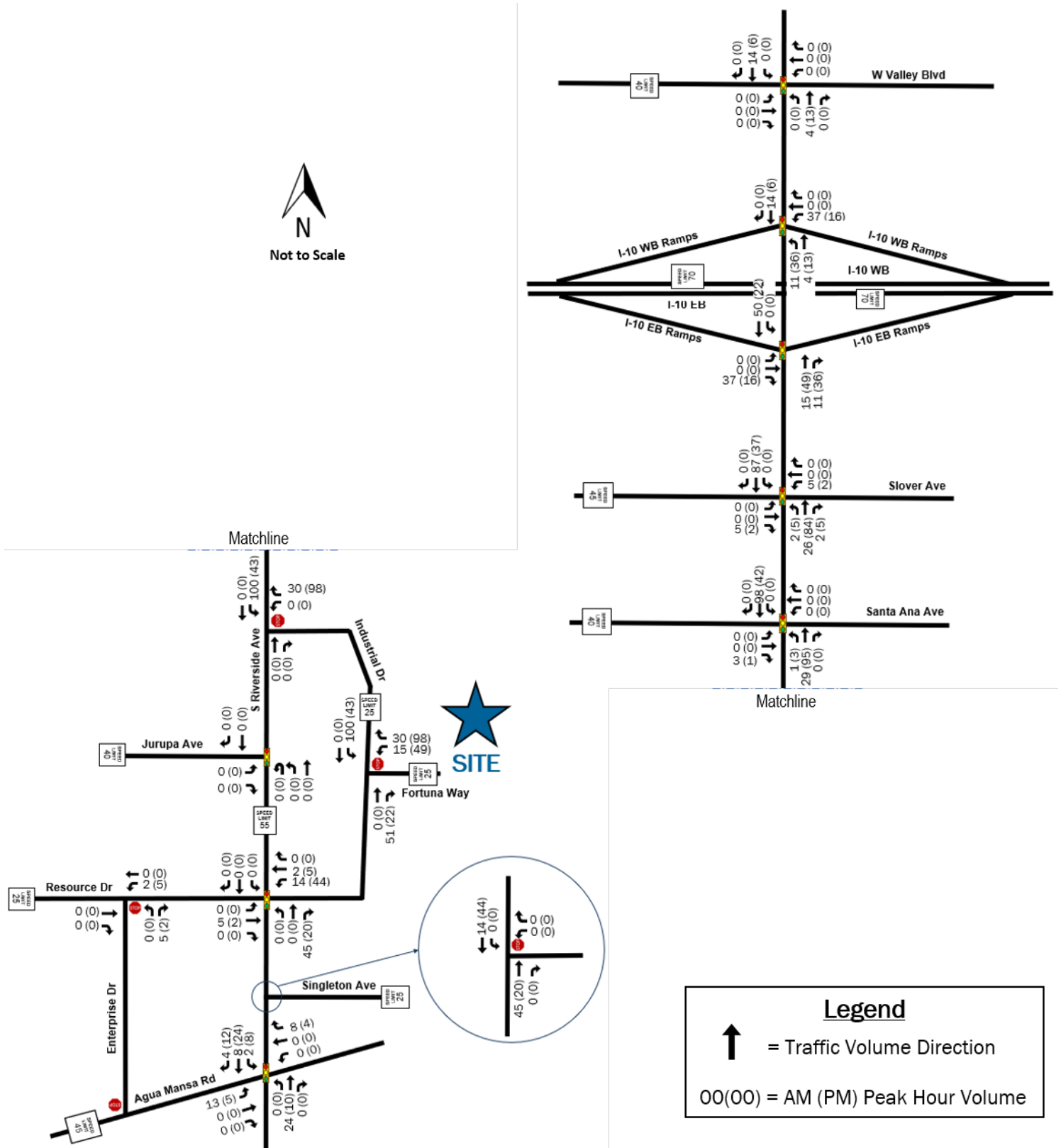


Figure 11. Project Site Trips



C.2. Opening Year 2022 - Existing Plus Growth Plus Project

This scenario portrays the existing network with the ambient growth and the project trips to predict what the operations of the transportation network will be in the opening year of 2022.

C.2.1. Ambient Growth Rate

Analysis of the historic development pattern, changes in nearby traffic volumes, and the anticipated completion of the project informed the development of a growth rate for the study area's traffic. Opening Year is anticipated to be 2022. A compound annual growth rate of 2% per year was established with coordination with the City of Rialto. This rate was applied to the existing 2020 PCE volumes for a period of two-years to account for changes in the background traffic volumes.

C.2.2. Opening Year 2022 - Existing Plus Growth

Peak hour intersection volumes for Opening Year 2022 without project traffic are shown in Figure 12. Intersection Level of Service conditions without project are shown in Table 8. All intersections would operate at LOS E or better.

Daily roadway segment operating conditions for Opening Year 2022 without project Level of Service conditions are shown in Table 9. Like the existing conditions, all roadway segments would operate over capacity with an LOS F.

C.2.3. Opening Year 2022 - Existing Plus Growth Plus Project

Peak hour intersection volumes for Opening Year 2022 with project traffic are shown in Figure 13. Intersection Level of Service conditions with project are shown in Table 8. All intersections are operating with an LOS E or better. The additional project traffic is not significant; therefore, no intersection mitigation is required at this stage.

Daily roadway segment operations for Opening Year 2022 with project Level of Service conditions are shown in Table 9. All roadway segments would operate over capacity with an LOS F; therefore, roadway segment mitigation is required.

Figure 12. Opening Year 2022 - Existing Plus Growth Volumes

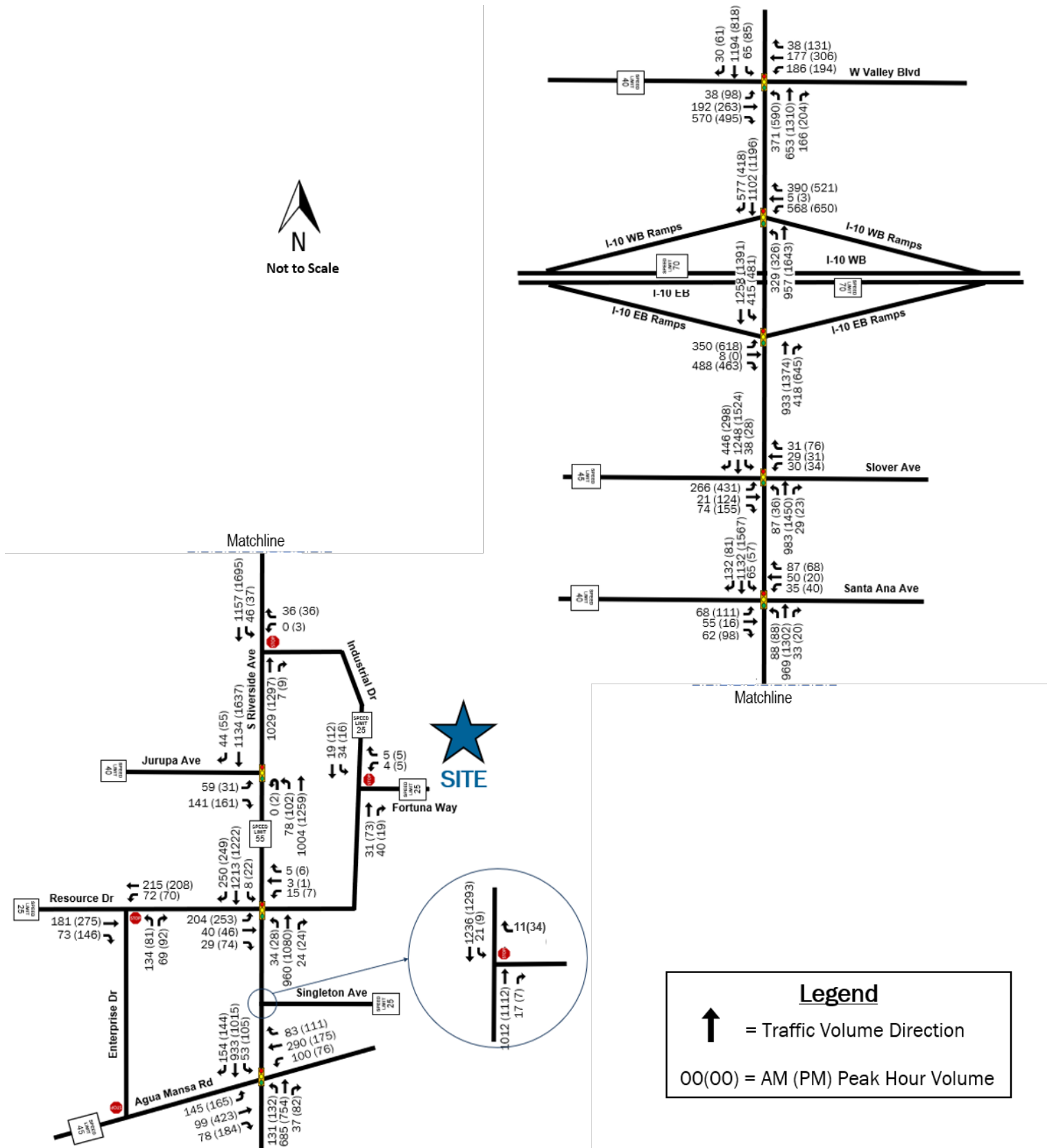


Figure 13. Opening Year 2022 - Existing Plus Growth Plus Project Volumes

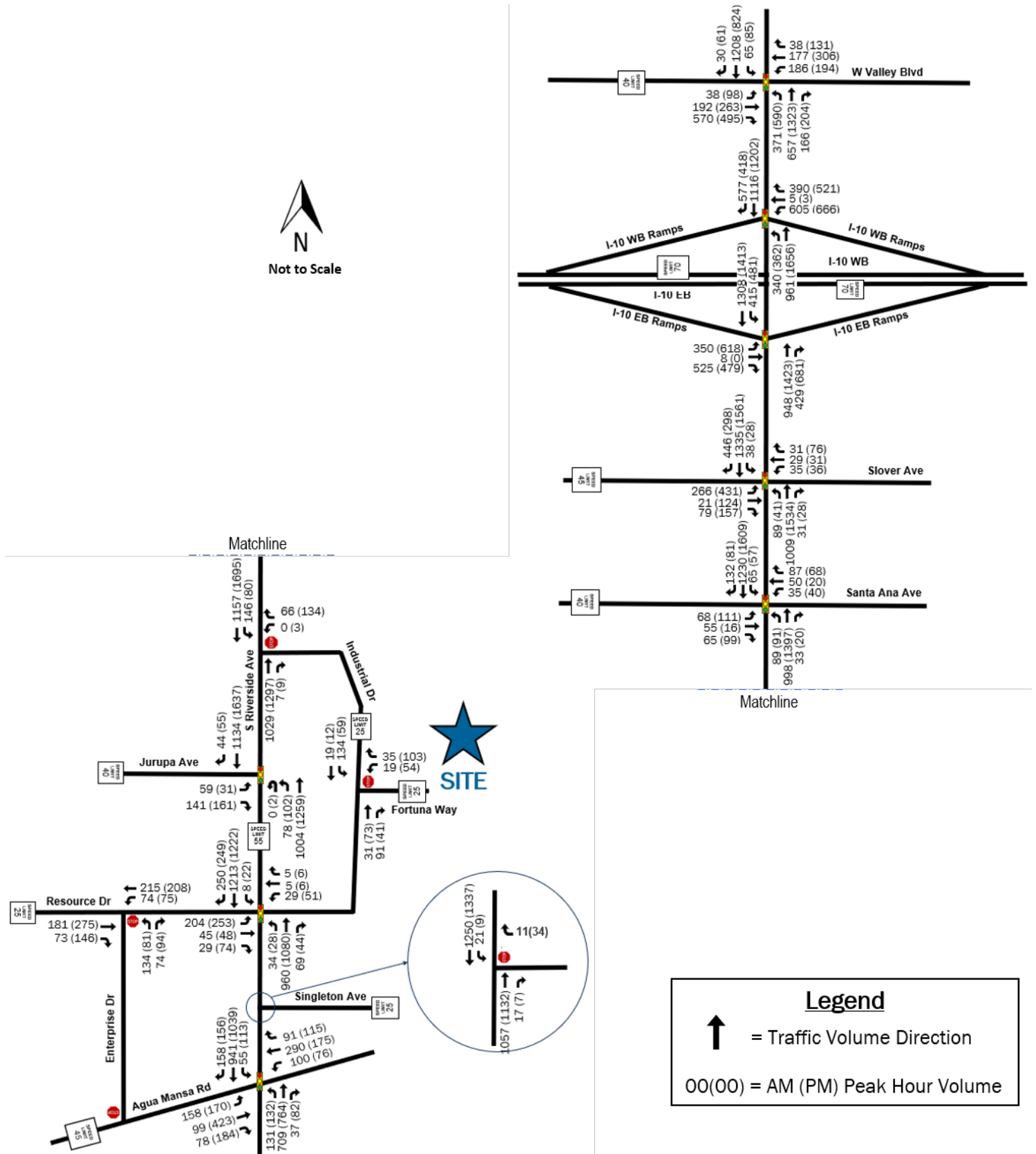


Table 8: Opening Year (2022) Intersection Operations
(Existing + Growth + Project)

Intersection		Traffic Control	AM Peak Hour						PM Peak Hour					
			Without Project		With Project		Project Impact	Impact Sig?	Without Project		With Project		Project Impact	Impact Sig?
			Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	S Riverside Ave & W Valley Blvd	Signal	39.8	D	40.0	D	0.2	No	36.7	D	36.9	D	0.2	No
2	S Riverside Ave & I-10 WB Ramps	Signal	23.3	C	24.5	C	1.2	No	20.8	D	21.6	C	0.8	No
3	S Riverside Ave & I-10 EB Ramps	Signal	25.6	C	27.1	C	1.5	No	39.4	D	43.0	D	3.6	No
4	S Riverside Ave & Slover Ave	Signal	38.8	D	40.8	D	2	No	75.0	D	76.8	E	1.8	No
5	S Riverside Ave & Santa Ana Ave	Signal	19.8	B	22.2	C	2.4	No	24.7	C	26.5	C	1.8	No
6	S Riverside Ave & Industrial Dr	Stop	15.5	C	16.5	C	1	No	19.2	C	23.8	C	4.6	No
7	S Riverside Ave & Jurupa Ave	Signal	10.4	B	10.4	B	0	No	14.0	B	14.0	B	0	No
8	S Riverside Ave & Resource Dr/Industrial Dr	Signal	22.6	C	18.3	B	-4.3	No	18.2	B	17.6	B	-0.6	No
9	S Riverside Ave & Singleton Dr	Stop	12.3	B	12.5	B	0.2	No	13.2	B	13.4	B	0.2	No
10	S Riverside Ave & Agua Mansa Rd	Signal	28.2	C	29.2	C	1	No	34.8	C	35.1	D	0.3	No
11	Industrial Dr & Fortuna Way	Stop	9.5	A	10.7	B	1.2	No	9.5	A	11.0	B	1.5	No
12	Resource Dr & Enterprise Dr	Stop	13.9	B	14.0	B	0.1	No	13.8	B	13.9	B	0.1	No

Notes: BOLD and shaded values indicate intersections operating at LOS F

At signalized intersections, delay refers to the average control delay for the entire intersection, measured in seconds/vehicle

At stop-controlled intersections, delay refers to the average vehicle delay on the worst (highest delay) movement

Delay values are based on methodology outlines in the 6th Edition Highway Capacity Manual.

Table 9: Opening Year (2022) Roadway Segment Operations
(Existing + Growth + Project)

Roadway	Segment	LOS E Capacity	ADT in PCEs				LOS E or Better?
			Existing (2020)	Without Project	Project Traffic	With Project	
S Riverside Ave	I-10 WB ramps to I-10 EB ramps	54,900	59,410	61,810	730	62,540	No
	I-10 EB ramps to Slover Ave	36,400	56,753	59,046	730	59,776	No
	Slover Ave to Santa Ana Ave	36,400	51,250	53,321	821	54,142	No
	Santa Ana Ave to Industrial Dr	36,400	65,161	67,794	844	68,638	No
	Resource Dr to Agua Mansa Rd	36,400	53,143	55,290	381	55,671	No

Notes: LOS = Level of Service
ADT = Average Daily Traffic
PCE = Passenger Car Equivalent

C.3. Cumulative Conditions (Existing Plus Growth Plus Cumulative Projects)

This scenario portrays the existing network with the ambient growth and the cumulative project trips to predict the operations of the transportation network in the opening year of 2022 if all development under consideration at this time were fully operational.

C.3.1. Ambient Growth Rate

As discussed in section C.2.1, a compound annual growth rate of 2%, coordinated with the City of Rialto, has been applied to the existing traffic volumes for a period of two-years to account for changes in the background traffic volumes.

C.3.2. Cumulative Projects

Cumulative projects (approved and pending approval) are added to the Existing Plus Growth traffic volumes in this scenario. Cumulative projects consist of any project that has been approved and is not yet completed and projects that are in various stages of application and approval processes. The locations of the cumulative projects are shown in Figure 14. A summary of Cumulative Projects in the project vicinity and their trip generation is shown in Table 10. Cumulative project traffic volumes at the studied intersections are shown in Figure 15.

C.3.3. Cumulative Projects Trip Generation

Trip generation information for the Cumulative Projects was derived either from approved traffic studies, City of Rialto Traffic Commission Meeting minutes or ITE Trip generation rates for similar types of development. Project information and trip generation assumptions for Cumulative Projects are provided in Appendix G.

Figure 14. Location of Cumulative Projects

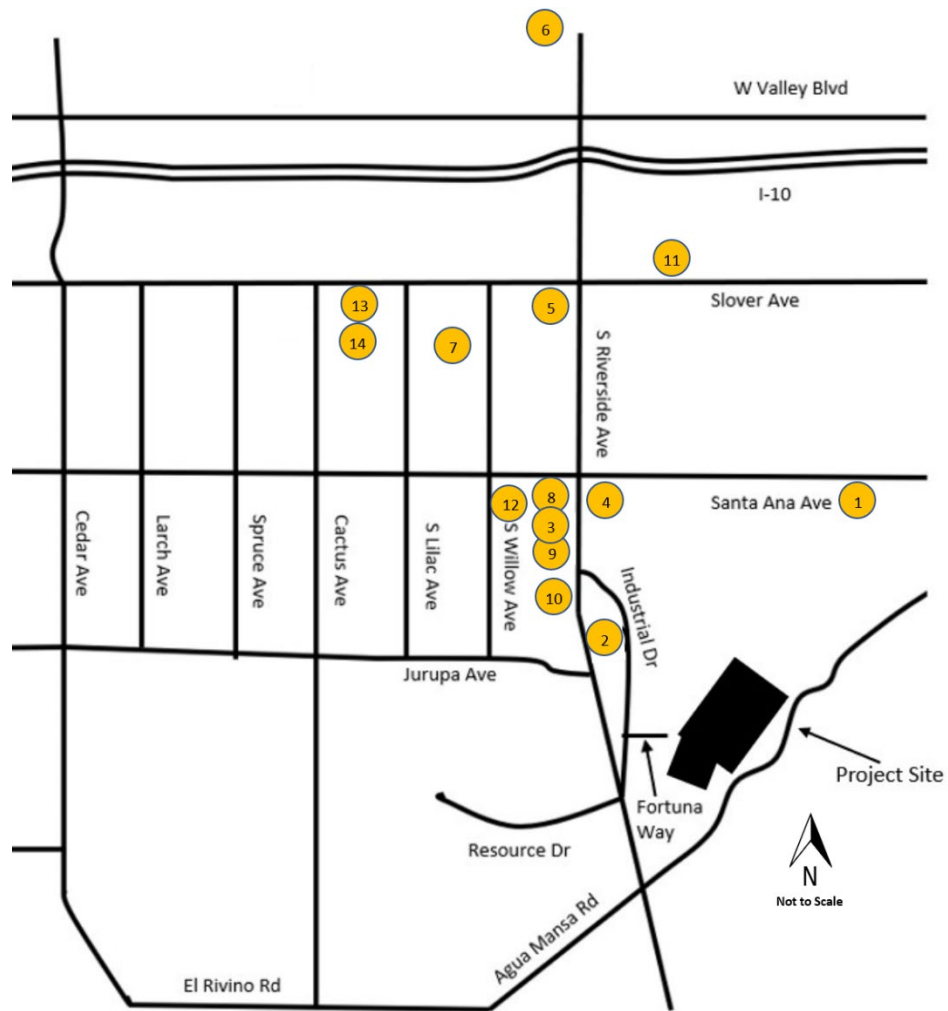


Table 10: Summary of Cumulative Projects Trip Generation

Project #	Land Use	Quantity	Units	Source	Trip Generation Estimates						
					Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
1	South of Santa Ana Ave, East of Riverside Ave			ITE							
	Warehouse	370,000	TSF		630	54	16	70	19	53	72
	Passenger Cars		PCE		423	51	12	63	13	48	61
	Truck Trips				207	3	4	7	6	5	11
	2-axle	1.5	PCE		50	1	1	2	1	1	3
	3-axle	2.0	PCE		87	1	2	3	3	2	5
	4+ axle	3.0	PCE		391	6	8	13	11	9	21
	Net Truck Trips (PCE)				528	8	10	18	15	13	28
	Total Net Trips (PCE)				951	59	22	81	28	61	89
2	SEC of Riverside Ave and Industrial Dr.										
	Trucking	3.6	AC								
	Total Net Trips (PCE)				927	35	50	85	33	40	73
3	NWC of Riverside Ave and Industrial Dr.			TIS							
	Semi-Truck Drop/Storage Lot	3.3	Acres								
	Total Net Trips (PCE)				850	32	46	78	30	37	67
4	SEC of Riverside Ave and Santa Ana Ave.			TIS							
	Super Convenient Market/Gas Station/Diesel Station										
	Total Net Trips (PCE)				3,803	232	231	463	190	189	379
5	SWC of Riverside Ave and Slover Ave.			TIS							
	Fast Food w/Drive Thru										
	Total Net Trips (PCE)				1,732	50	48	98	63	58	121
6	Valley/Willow Warehouse			ITE							
	Warehouse	492.41	TSF		824	65	19	84	23	64	87
	Passenger Cars		PCE		551	60	14	74	15	57	72
	Truck Trips				273	5	5	10	8	7	15
	2-axle	1.5	PCE		66	1	1	2	2	2	4
	3-axle	2.0	PCE		115	2	2	4	3	3	6
	4+ axle	3.0	PCE		516	9	9	19	15	13	28
	Net Truck Trips (PCE)				696	13	13	26	20	18	38
	Total Net Trips (PCE)				1,247	73	27	100	35	75	110
7	Old Dominion Expansion			TIS							
	Parking Lot (407 Spaces)										
	Total Net Trips (PCE)				375	21	39	60	37	18	55
8	SC Fuels			TIS							
	Fuel Storage/Service										
	Total Net Trips (PCE)				1,862	169	160	329	177	194	371

Table 10: Summary of Cumulative Projects Trip Generation (Cont.)

Project #	Land Use	Quantity	Units	Source	Trip Generation Estimates						
					Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
9	Lynn Trucking			ITE							
	Truck Parking Yard (PCE)	3.07	AC		791	30	43	73	28	34	62
	Car Wash/Repair Trips	8.827	TSF		156	5	4	9	7	7	14
	Car Wash/Repair PCE				468	15	12	27	21	21	42
	Total PCE Trips				1,259	45	55	100	49	55	104
10	Riverside Pallet Yard			ITE							
	Pallet Yard	3.58	AC								
	Total PCE Trips				922	35	50	85	33	40	73
11	Onyx Paving			TIS							
	Contractor's Yard										
	Total Net Trips (PCE)				80	7	33	40	33	7	40
12	Bakery Addition			ITE							
	Bakery	14,000	TSF		111	9	1	10	1	8	9
	Auto Trips				107	9	1	10	1	8	9
	Truck Trips				4	0	0	0	0	0	0
	Truck PCE Trips				8	0	0	0	0	0	0
	Total PCE Trips				874	9	1	10	1	8	9
13	Flyers Energy Addition			ITE							
	Warehouse	9.35	TSF		60	20	6	26	8	21	29
	Auto Trips				47	20	6	26	8	21	29
	Truck Trips				13	0	0	0	0	0	0
	Truck PCE Trips				39	0	0	0	0	0	0
	Total PCE Trips				86	20	6	26	8	21	29
14	Lilac Avenue Truck Terminal										
	Trucking	9.44	AC								
	Total PCE Trips				2,432	92	132	223	86	106	192

C.3.5. Cumulative Projects Trip Distribution and Assignment.

Trip distribution assumptions for the cumulative projects was derived from either approved traffic studies or developed by NV5 if the studies were not available. Trip distribution assumptions for Cumulative Projects are provided in Appendix G. Cumulative project trips are illustrated in Figure 15.

C.3.6. Opening Year 2022 - Cumulative Without Project Conditions

Peak hour intersection volumes for Opening Year 2022 with cumulative projects but without the subject project are shown in Figure 16. Intersection Level of Service conditions without the subject project are shown in Table 11. All intersections would operate at LOS E or better except S Riverside Avenue at Slover Avenue, S Riverside Avenue at Santa Ana Avenue, and S Riverside Avenue at the I-10 EB Ramps which would operate at LOS F during at least one peak hour in this scenario.

Figure 15: Cumulative Project Traffic Volumes

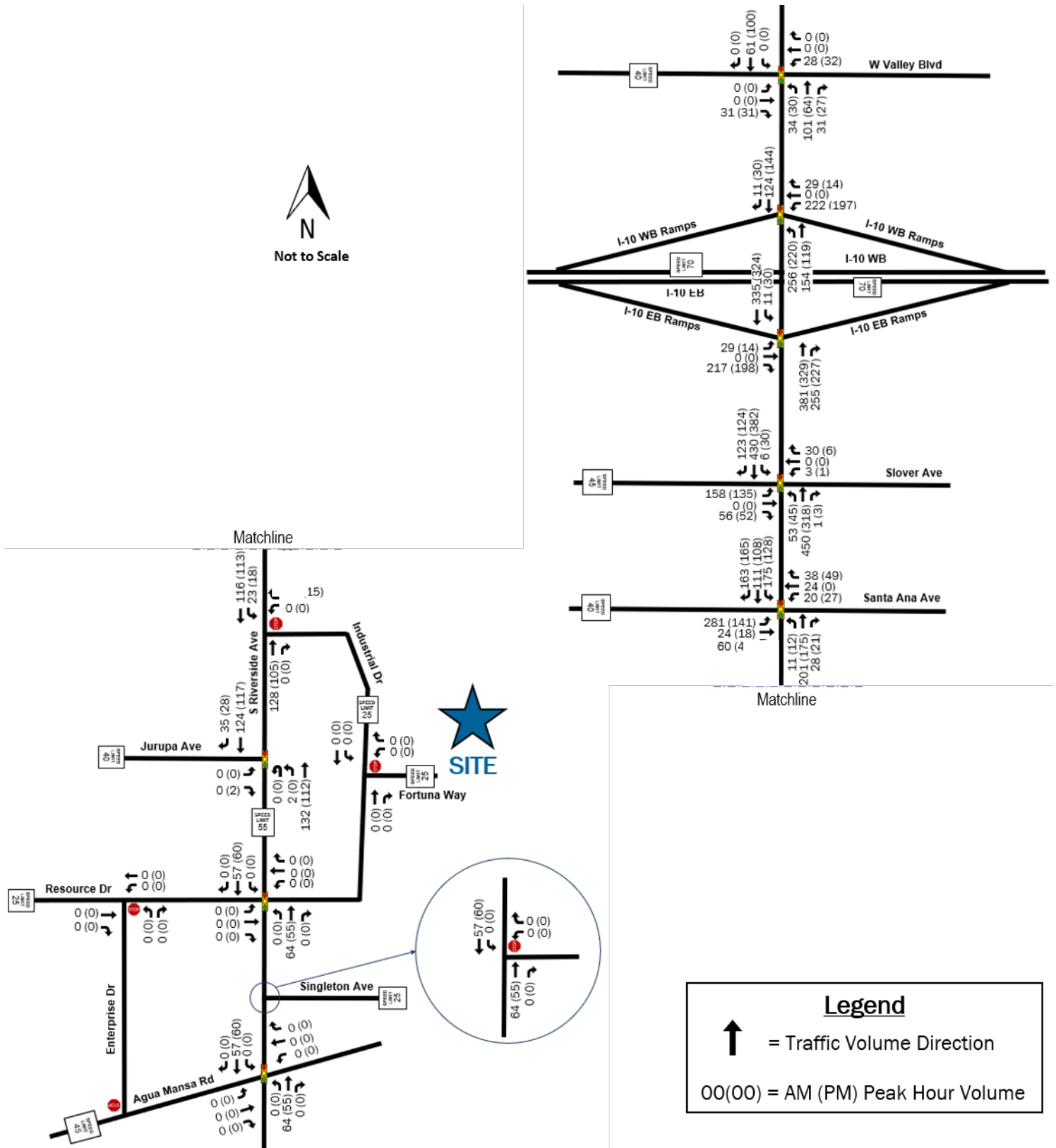
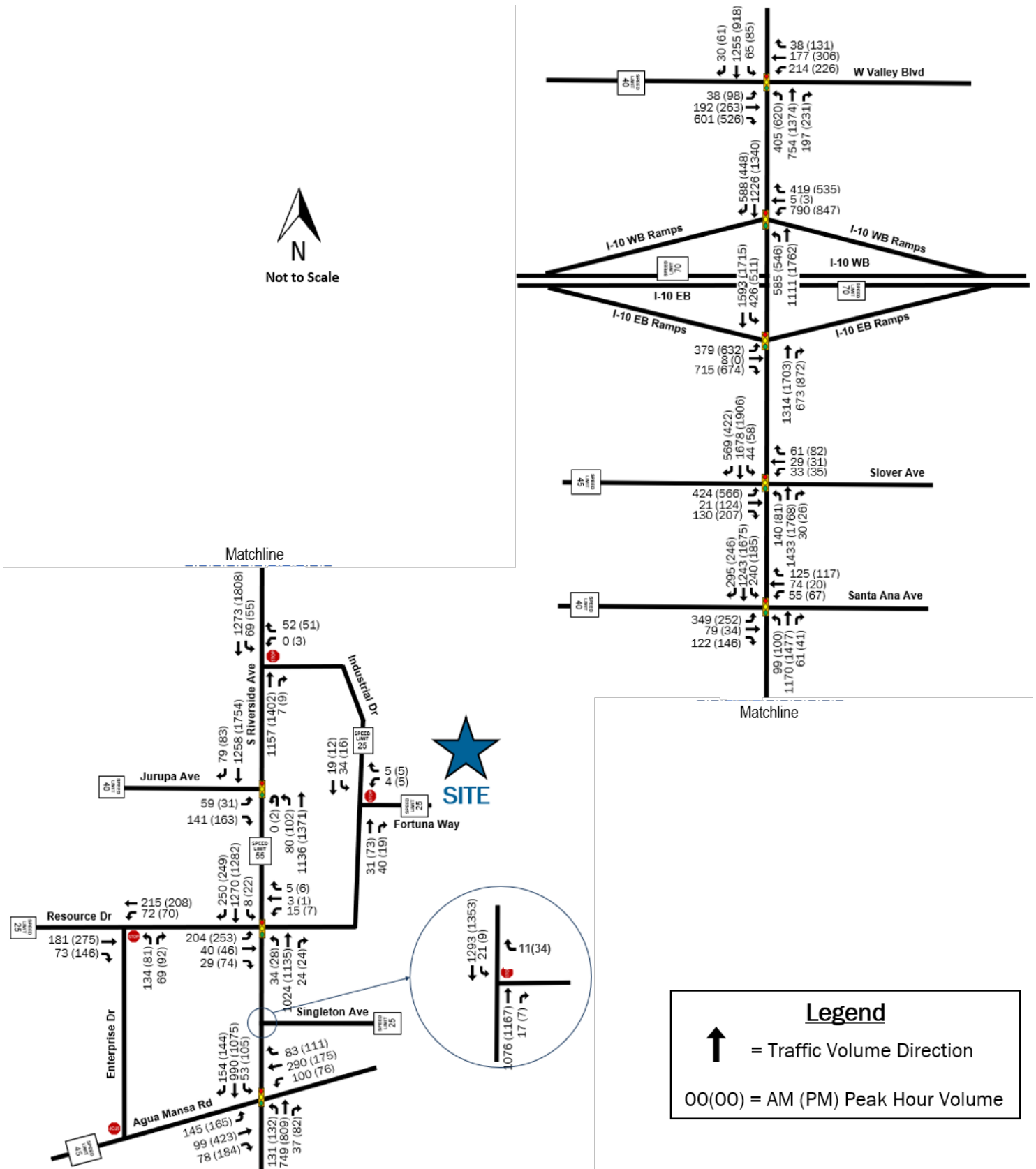


Figure 16. Opening Year 2022 Cumulative - Without Project



Daily roadway segment operations for Opening Year 2022 with cumulative projects but without the subject project Level of Service conditions are shown in Table 12. As in previous scenarios, all roadway segments operate over capacity with an LOS F and are beyond the acceptable LOS per the General Plan.

C.3.7. Opening Year 2022 Cumulative - With Project Conditions

Peak hour intersection volumes for Opening Year 2022 with cumulative projects and the subject project are shown in Figure 17. Intersection Level of Service conditions with project are shown in Table 11. All intersections would operate at LOS E or better except S Riverside Avenue at Slover Avenue, S Riverside Avenue at Santa Ana Avenue, and S Riverside Avenue at the I-10 EB Ramps, which would operate at LOS F during at least one peak hour in this scenario.

Daily roadway segment operations for Opening Year 2022 with cumulative projects and the subject project volumes Level of Service conditions are shown in Table 12. As in previous scenarios, all roadway segments operate over capacity with an LOS F and are beyond the acceptable LOS per the General Plan.

Figure 17. Opening Year 2022 Cumulative – With Project

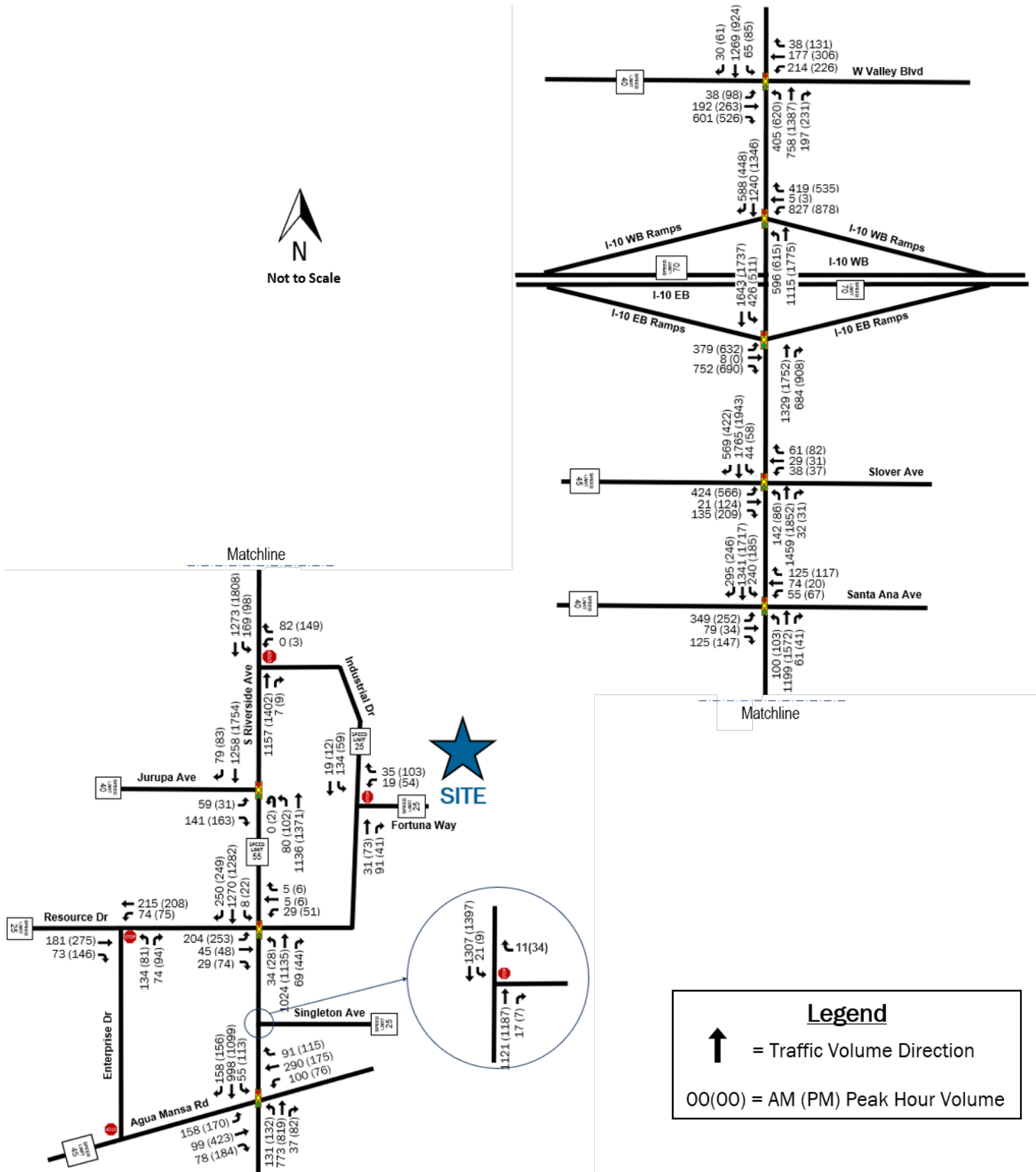


Table 11: Opening Year (2022) Intersection Operations with Subject & Cumulative Projects
(Existing + Growth + Cumulative + Project)

Intersection		Traffic Control	AM Peak Hour						PM Peak Hour					
			Without Project		With Project		Project Impact	Impact Sig?	Without Project		With Project		Project Impact	Impact Sig?
			Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	S Riverside Ave & W Valley Blvd	Signal	44.7	D	44.9	D	0.2	No	41.9	D	41.6	D	-0.3	No
2	S Riverside Ave & I-10 WB Ramps	Signal	45.7	D	49.6	D	3.9	No	31.1	C	34.9	C	3.8	No
3	S Riverside Ave & I-10 EB Ramps	Signal	62.0	E	65.4	E	3.4	Yes	85.4	F	93.6	F	11.2	Yes
4	S Riverside Ave & Slover Ave	Signal	147.3	F	150.4	F	3.1	Yes	198.8	F	200.7	F	1.9	No
5	S Riverside Ave & Santa Ana Ave	Signal	159.2	F	168.0	F	8.8	Yes	84.3	F	92.7	F	8.4	Yes
6	S Riverside Ave & Industrial Dr	Stop	17.6	C	19.0	C	1.4	No	21.2	C	28.9	D	7.7	No
7	S Riverside Ave & Jurupa Ave	Signal	17.0	B	17.0	B	0	No	15.8	B	15.8	B	0	No
8	S Riverside Ave & Resource Dr/Industrial Dr	Signal	18.3	B	18.6	B	0.3	No	19.0	B	17.7	B	-1.3	No
9	S Riverside Ave & Singleton Dr	Stop	12.7	B	12.9	B	0.2	No	13.6	B	13.8	B	0.2	No
10	S Riverside Ave & Agua Mansa Rd	Signal	27.8	C	29.1	C	1.3	No	35.1	D	35.5	D	0.4	No
11	Industrial Dr & Fortuna Way	Stop	9.5	A	10.7	A	1.2	No	9.5	A	11.0	B	1.5	No
12	Resource Dr & Enterprise Dr	Stop	13.9	B	14.0	B	0.1	No	13.8	B	13.9	B	0.1	No

Notes: **BOLD** and **shaded** values indicate intersections operating at LOS F

At signalized intersections, delay refers to the average control delay for the entire intersection, measured in seconds/vehicle

At stop-controlled intersections, delay refers to the average vehicle delay on the worst (highest delay) movement

Delay values are based on methodology outlines in the 6th Edition Highway Capacity Manual.

**Table 12: Opening Year (2022) Roadway Segment Operations with Subject & Cumulative Projects
(Existing + Growth + Cumulative + Project)**

Roadway	Segment	LOS E Capacity	ADT in PCEs				LOS E or Better?
			Existing (2020)	Without Project	Project Traffic	With Project	
S Riverside Ave	I-10 WB ramps to I-10 EB ramps	54,900	59,410	68,771	730	69,501	No
	I-10 EB ramps to Slover Ave	36,400	56,753	71,218	730	71,948	No
	Slover Ave to Santa Ana Ave	36,400	51,250	63,420	821	64,241	No
	Santa Ana Ave to Industrial Dr	36,400	65,161	71,580	844	2,424	No
	Resource Dr to Agua Mansa Rd	36,400	53,143	58,519	381	8,900	No

Notes: Daily roadway counts were collected in 2018. Counts were increased by 2%/year to bring the existing ADT to 2022.

LOS = Level of Service

ADT = Average Daily Traffic

PCE = Passenger Car Equivalent

D. Vehicle-Miles Traveled (VMT)

As part of CEQA regulations, a VMT analysis has been conducted. San Bernardino County guidelines were utilized per direction of City of Rialto personnel. The site was screened using the San Bernardino County guidelines and was found to warrant the VMT analysis. The average VMT for the San Bernardino County area was found to be 18.98. With the project included, the VMT was calculated to be 21.18. Per San Bernardino County Guidelines, any project that causes an increase in VMT must be mitigated to reduce the VMT by 4% below the regional average. This means that the project VMT must be no more than 18.22.

The VMT analysis includes mitigation measures to reduce the site's VMT and therefore be compliant of CEQA regulations. Table 13 summarizes the proposed VMT reduction strategies for the subject project as well as the final calculated VMT with mitigations. Details regarding the analysis and all supporting documentation is provided under a separate cover.

Table 13: VMT Analysis Results

Reduction Strategy		Range of Effectiveness	VMT Reduction	Combined VMT Reduction	Results
Commute Trip Reduction (CAPCOA)					
TRT-1	Implement Commute Trip Reduction Marketing	0.8 - 6.2%	4.16%	8.8%	-1.86
TRT-3	Provide Ride Sharing Program	1-15%	5.0%	8.8%	
TRT-8	Preferential Parking Permit Program	N/A	N/A	8.8%	
Baseline 2022 Conditions w/ Project					21.18
Baseline 2022 Conditions w/ Project (CAPCOA Reduction)					19.32
Local Hiring Reduction (25%)					2.32
Baseline 2022 Conditions w/ Project (Local Hiring and CAPCOA Strategies)					17.0

E. Mitigation Measures

E.1. Intersection Improvements

Based on the City of Rialto's *Traffic Impact Analysis Report Guidelines*, the proposed project causes significant impacts at three intersections within the study area under the cumulative conditions:

- S Riverside Avenue @ I-10 EB Ramps (PM Peak Hour)
- S Riverside Avenue @ Slover Avenue (AM Peak Hour)
- S Riverside Avenue @ Santa Ana Avenue (AM & PM Peak Hour)

All intersections along S Riverside Avenue would operate at LOS E or better and all other intersections operate at LOS D or better with the project but without other cumulative projects. Under the Cumulative conditions, S Riverside Avenue's intersections at the I-10 EB Ramps, Slover Avenue, and Santa Ana Avenue would fall to LOS F.

The City of Rialto's Development Impact Fee (DIF) Nexus Study indicates improvements are funded through all significantly impacted intersections along S Riverside Avenue as part of the overall widening of Riverside Avenue between the I-10 eastbound ramps and Agua Mansa Road. Specific improvements are also funded for the intersection at Slover Avenue. There are no specific intersection improvements slated for S Riverside Avenue at I-10 Eastbound Ramps and Santa Ana Avenue. The widening and additional improvements at Slover Avenue would address the deficiencies at the intersections impacted under the cumulative conditions. Because the widening of S Riverside Avenue would increase capacity of the roadway and intrinsically improve operations at the other two significantly impacted intersections, no additional intersection improvements are identified in this report. However, with an overall roadway widening, there are intersection-specific improvements (i.e. signal modification). The cost associated with these intersection improvements is expected to be of similar scope as that which is summarized in the cost estimate for S Riverside Avenue at Slover Avenue. Because these intersections are still considered significantly impacted by the subject project, the cost estimate utilized for S Riverside Avenue at Slover Avenue was also utilized to estimate intersection-specific improvements for S Riverside Avenue at I-10 Eastbound Ramps and at Santa Ana Avenue.

E.2. Roadway Improvements

Based on the City of Rialto's *Traffic Impact Analysis Report Guidelines*, LOS threshold values for roadway segments, the following segments are currently, or will exceed their daily roadway capacities:

- S Riverside Ave: I-10 WB ramps to I-10 EB ramps
- S Riverside Ave: I-10 EB ramps to Slover Avenue
- S Riverside Ave: Slover Avenue to Santa Ana Ave
- S Riverside Ave: Santa Ana Ave to Industrial Dr
- S Riverside Ave: Resource Dr to Agua Mansa Rd

A Peak Hour Link Analysis (PHLA) was conducted for all five roadway segments since they all exceed their daily capacities. This analysis is conducted to determine if there is enough hourly capacity during the am and pm peak hours. A capacity of 1,600 PCE per lane per hour was assumed based on roadway characteristics as established by the Highway Capacity Manual (HCM) 6th Edition. The existing number of lanes was used to estimate link capacity, and the total approach volume from the Opening Year Plus Project Plus Cumulative Traffic scenario was compared to the capacity. Table 14 summarizes the findings of the PHLA for existing number of lanes and the scenario with the highest traffic volume—Opening Year Plus Project Plus Cumulative Traffic.

Table 14: Opening Year (2022) Peak Hour Link Analysis (PHLA) Summary
(Existing + Growth + Cumulative + Project)

Roadway	Segment	# of lanes	Capacity ¹	AM Peak Hour			PM Peak Hour		
				Volume ² (North End)	Volume ² (South End)	V/C	Volume ² (North End)	Volume ² (South End)	V/C
S Riverside Avenue	I-10 WB ramps to I-10 EB ramps	6	9,600	3,778	3,777	0.39	4,614	4,632	0.48
	I-10 EB ramps to Slover Ave	5	8,000	4,408	4,322	0.55	5,087	3,081	0.51
	Slover Ave to Santa Ana Ave	4	6,400	3,645	3,549	0.56	4,158	4,089	0.64
	Santa Ana Ave to Industrial Dr	4	6,400	2,881	2,681	0.43	3,647	3,457	0.56
	Resource Dr to Agua Mansa Rd	4	6,400	2,485	2,233	0.37	2,614	2,472	0.40

¹1,600 vehicles/hr/ln is assumed

²Volume shown in PCEs from Opening Year Plus Project Plus Cumulative Traffic

S Riverside Ave: I-10 WB ramps to I-10 EB ramps: This segment is currently six lanes with additional turn lanes. According to the General Plan, this segment is classified as Modified Major Arterial II. According to the San Bernardino County Transportation Authority (SBCTA) Transportation Management Plan (CMP), the interchange of I-10 at Riverside Dr was recently widened. No further widening is anticipated based on the General Plan and the City of Rialto Development Impact Fee (DIF) Nexus Study. The PHLA indicates that this segment would operate below a volume-to-capacity ratio of 1.0 in Opening Year Plus Project Plus Cumulative Traffic conditions. This means that the link will function adequately at peak hours and that the intersections at either end of the roadway segment are driving the operations of the segment. Therefore, no mitigations are recommended for this segment.

S Riverside Ave: I-10 EB ramps to Agua Mansa Rd: These segments are currently five and four lanes with additional turn lanes near intersections. According to the General Plan, these segments are classified as Modified Major Arterial II. According to the San Bernardino County Transportation Authority (SBCTA) Transportation Management Plan (CMP), Riverside Avenue between the I-10 eastbound ramps and Agua Mansa Road will be widened from four and five lanes to six lanes and will be classified as an arterial with a 120' cross section. The total cost of this widening is funded by transportation impact fees by the City of Rialto and other jurisdictions in which this roadway is in the sphere of influence. The PHLA indicates that this segment would operate below a volume-to-capacity ratio of 1.0 in Opening Year Plus Project Plus Cumulative Traffic conditions. This means that the link will function adequately at peak hours and that the intersections at either end are driving the operations of the segment. The cost estimate associated for this widening was utilized to calculate the subject projects fair-share cost.

F. Findings and Recommendations

F.1. Programed Improvements

Mitigation is proposed to widen Riverside Avenue between I-10 eastbound ramps and Agua Mansa Road in accordance with the City of Rialto's General Plan. This improvement is listed in the City of Rialto's Development Impact Fee (DIF) Nexus Study and is to be funded via transportation impact fees levied by the City of Rialto. Table 15 summarizes the analysis results for the intersections that are expected to operate at LOS F in the opening year with the project and cumulative traffic compared to the operations of these intersections with the proposed improvements per the Nexus Study. With these mitigation measures, LOS is maintained in accordance with the City of Rialto General Plan. These intersections are also those significantly impacted according to City of Rialto's *Traffic Impact Analysis Report Guidelines*.

Table 15: Opening Year (2022) Intersection Operations with Programmed Improvements
(Existing + Growth + Cumulative + Project)

Intersection		AM Peak Hour				PM Peak Hour			
		Without		With		Without		With	
		Improvement				Improvement			
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
3	S Riverside Avenue at I-10 Eastbound Ramps	65.4	E	54.2	D	93.6	F	72.5	E
4	S Riverside Avenue at Slover Avenue	150.4	F	24.2	C	200.7	F	40.2	D
5	S Riverside Avenue at Santa Ana Avenue	168.0	F	47.8	D	92.7	F	28.4	C

Notes: **Bold** and **shaded** values indicate intersections operating at LOS F

Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle

Delay values are based on methodology outlined in the 6th Edition Highway Capacity Manual

The widening of S Riverside Avenue per the General Plan adds one lane in each direction for a total of six lanes. Table 16 compares the volumes of the Opening Year Plus Projects Plus Cumulative Traffic and compares it to the updated LOS E threshold of the widened roadway. Even with the widening, LOS E is not maintained. This is remedied by PHLA discussed above.

**Table 16: Opening Year (2022) Roadway Segment Operations with Programed Improvements
(Existing + Growth + Cumulative + Project)**

Roadway	Segment	LOS E Capacity ¹	ADT in PCEs			LOS E or Better?
			Without Project	Project Traffic	With Project	
S Riverside Avenue	I-10 WB ramps to I-10 EB ramps	54,900	68,771	730	69,501	No
	I-10 EB ramps to Slover Ave	54,900	71,218	730	71,948	No
	Slover Ave to Santa Ana Ave	54,900	63,420	821	64,241	No
	Santa Ana Ave to Industrial Dr	54,900	71,580	844	72,424	No
	Resource Dr to Agua Mansa Rd	54,900	58,519	381	58,900	No

¹With programed improvements

Notes: LOS = Level of Service

ADT = Average Daily Traffic

PCE = Passenger Car Equivalent

F.2. Traffic Signal Warrant Analysis

No stop-controlled intersections within the study area are shown as proposed signals in the General Plan. Nevertheless, signal warrant analyses, based on the cumulative build condition, for the four stop-controlled intersections in the study area are included in Appendix H. Apart from the intersection of S Riverside Avenue and Industrial Drive, none of these intersections meet any warrants for the consideration of a traffic signal. The Industrial Drive intersection meets the Peak Hour Warrant (#3) during the evening peak hour, but with right-turning traffic from Industrial Drive. It would also meet the Peak Hour Warrant with the southbound left turning traffic considered the minor movement and the northbound traffic considered the major movement during the morning peak hour. The same is true for Warrants 1 (Eight-Hour Vehicular Volume) and 2 (Four-Hour Vehicular Volume) during the peak hours. Condition A (Minimum Vehicular Volumes) of Warrant 1 would be met during both hours for which data is available as would Warrant 2. However, delays for both the traffic exiting and turning left onto Industrial Drive do not exceed and average of 29 seconds/vehicle and the volume to capacity ratio would be less than 0.51 during peak hours under the cumulative build conditions, well within acceptable ranges. Approval of a traffic signal at this location is not anticipated due in part to the small amount of traffic turning left from Industrial Drive and the option for that traffic to access S. Riverside Avenue via the existing signalized intersection at Resource Drive (intersection 8).

F.3. Site Circulation

Vehicular access to the project site will be via two driveways in the col-de-sac of Fortuna Way.

- Driveway 1 will be enter-only and provide access to the entire site. All vehicles will enter via Driveway 1.
- Driveway 2 will be exit-only.
- Driveways 1 and 2 will be 26' wide.

The two driveways are located at the end of a cul-de-sac and act as an extension of Fortuna Way. The cumulative with project intersection analysis indicates that both driveways will operate at an acceptable Level of Service during both peak hour periods.

Circulation within the site is in one direction. This reduces conflict points between vehicles reducing the probability of collisions within the site as well as their severity.

The driveway to Singleton Drive is proposed for construction traffic only and would rarely be used once the site is in operation.

F.4. Safety and Operational Improvements

The site driveways and project improvements must be designed so that adequate sight distance for drivers entering and exiting is maintained. Because these driveways are at the end of the cul-de-sac on Fortuna way, they act as an extension of the roadway reducing the need for sight distance as there are no conflicting movements.

Nevertheless, adequate sight distance must be maintained at both driveways. The line of sight, a straight line between the driver's eye and oncoming vehicles on the adjacent roadway, defines the Limited Use Area. The Limited Use Area for each driveway must be kept clear of visual obstructions, including project signs, building structures, and landscaping, in order to maintain adequate sight distance.

The proposed driveways of the site were also verified to provide sufficient space for ingress and egress of design vehicles. The driveways at the end of Fortuna Way were assessed with a WB-67 design vehicle. The driveway at the end of Singleton Drive is exclusive to construction vehicles. As a result, a dump truck was used as a design vehicle. Appendix I includes the truck turning templates for all proposed driveways of the site.

F.5. Fair Share Calculations

The mitigations proposed by this report coincide with the City of Rialto General Plan. The City's Development Impact Fee (DIF) document includes the widening of Riverside Drive between I-10 eastbound ramps and Agua Mansa Road. According to the DIF from 2016 the total cost of the widening of S Riverside Avenue is \$40,429,920. The bridge widening associated with this project already has funding at \$15,000,000 allocated for it. The remaining balance of \$25,429,920 was utilized for fair share calculations. The length of the widening project was measured to be 18724 feet. A unit cost per one hundred (100) feet of widening was calculated using the net cost of the project compared to the length of the project to be \$198,919.90 per one hundred feet of widening. The cost estimate for S Riverside Avenue is included in Appendix J.

Intersection specific improvements to S Riverside Avenue at Slover Avenue are also included in the DIF Nexus Study with a separate cost of \$355,200. This cost estimate is also included in Appendix J. While there are no specific cost estimates associated with the other two significantly impacted intersections, the cost estimate for S Riverside at Slover Avenue was utilized to calculate the fair share cost associated with the other two significantly impacted intersections.

Tables 17 and 18 calculate the fair share of each significantly impacted intersection and roadway segment. The percentage is then used to calculate the fair share cost associated with the burden of adding the project trips to that specific intersection or segment. Table 19 summarizes this cost per impacted intersection/segment as well as the total cost owed by the developer to the City of Rialto in traffic impact fees. Based on this calculation, the City of Rialto is owed \$724,397.81 in fair share costs as part of the permitting process for the subject project.

Table 17: Fair Share of Mitigation Measures – Intersections

Intersection		AM Peak					PM Peak				
		Total Volume		Total Growth	Project		Total Volume		Total Growth	Project	
		E	E+G+C+P		Trips	%age	E	E+G+C+P		Trips	%age
3	S Riverside Ave. at I-10 EB Ramps	3,720	5,221	1,501	96	6.4%	4,779	6,230	1,451	123	8.5%
4	S Riverside Ave. at Slover Ave.	3,157	4,719	1,562	95	6.1%	4,047	5,441	1,394	135	9.7%
5	S Riverside Ave. at Santa Ana Ave.	2,669	4,043	1,374	95	6.9%	3,332	4,501	1,169	141	12.1%

Table 18: Fair Share of Mitigation Measures – Segments (S Riverside Avenue)

Segment	Total Daily Volume		Total Daily Growth	Daily Project Trips	Project Percentage
	E	E+G+C+P			
I-10 EB ramps to Slover Ave	49,897	69,501	19,604	730	3.7%
Slover Ave to Santa Ana Ave	42,626	71,948	29,322	821	2.8%
Santa Ana Ave to Industrial Dr	36,839	64,241	27,402	844	3.1%
Industrial Dr to Agua Mansa Rd	47,673	72,424	24,751	427	1.7%

F.6. Specific Plan Signalization

Not Applicable.

F.7. General Plan Conformance

The proposed manufacturing facility is in conformance with the Agua Mansa Specific Plan and the City of Rialto General Plan. The proposed manufacturing facility use is permitted under the Employment and Employment Overlay land use designations. Neither a Specific Plan Amendment nor a General Plan Amendment is required for this project.

Table 19: Mitigation Fair Share Cost

Intersection/Segment	Unit Cost	Quantity ¹	Total
S Riverside Avenue at I-10 EB Ramps	\$ 355,200.00	1	\$ 355,200.00
Project Fair Share Percentage (E vs E+G+C+P) ²			8.5%
Project Cost			\$ 30,109.99
S Riverside Avenue at Slover Avenue	\$ 355,200.00	1	\$ 355,200.00
Project Fair Share Percentage (E vs E+G+C+P) ²			9.7%
Project Cost			\$ 34,398.85
S Riverside Avenue at Santa Ana Ave.	\$ 355,200.00	1	\$ 355,200.00
Project Fair Share Percentage (E vs E+G+C+P) ²			12.1%
Project Cost			\$ 42,842.77
I-10 EB ramps to Slover Ave	\$ 198,919.90	18.97	\$ 3,773,510.50
Project Fair Share Percentage (E vs E+G+C+P)			3.7%
Project Cost			\$ 140,515.34
Slover Ave to Santa Ana Ave	\$ 198,919.90	26.57	\$ 5,285,301.74
Project Fair Share Percentage (E vs E+G+C+P)			2.8%
Project Cost			\$ 147,985.56
Santa Ana Ave to Industrial Dr	\$ 198,919.90	17.11	\$ 3,403,519.49
Project Fair Share Percentage (E vs E+G+C+P)			3.1%
Project Cost			\$ 104,830.69
Industrial Dr to Agua Mansa Rd	\$ 198,919.90	65.19	\$ 12,967,588.27
Project Fair Share Percentage (E vs E+G+C+P)			1.7%
Project Cost			\$ 223,714.61
Total Project Cost			\$ 724,397.81

¹1 for intersections and measured in 100s of feet for roadway segments

²Higher of AM or PM project fair share percentage

Appendices

Appendix A – Scoping Document

Appendix B – Vicinity Map

Appendix C – Site Plan

Appendix D – Historic Traffic Counts (in lieu of new existing counts)

Appendix E – PCE Calculations

Appendix F – Synchro Analysis Outputs

Appendix G – Cumulative Project Calculations

Appendix H – Signal Warrant Analyses

Appendix I – Truck Turning Template

Appendix J – Cost Estimates

Appendix A – Scoping Document

MEMORANDUM

To: Daniel Casey, City of Rialto, California (dcasey@rialtoca.gov)
From: Victoria Guobaitis, PE, PTOE, NV5 Traffic Consultant (victoria.guobaitis@NV5.com)
CC: John Quigley, PE, Angelus Block Co., Inc. (JQuigley@angelusblock.com)
Date: April 19, 2021
Re: MC 2020-0012
 Angelus Block Co. Inc
 0 Fontana Way
 Rialto, CA 92316
 Traffic Scoping Memo

This memorandum reviews the scope of a proposed manufacturing building to be developed on parcels with APN 0260-061-67, APN 0260-061-41, and APN 0260-061-42. This memo serves as the initiating scoping memorandum between the City of Rialto and NV5 as the traffic engineering consultant on behalf Angelus Block Co, Inc.

EXISTING SITE INFORMATION

The proposed site is made up of three parcels and is located east of S Riverside Avenue and north of Agua Mansa Road in the southern part of Rialto. The site is located approximately 1.5 miles south of Interstate 10 (I-10). The proposed site is located on the 8th subset within the Agua Mansa Specific Plan which is consisted of primarily general industry land-use with minimal residential.

PROPOSED SITE INFORMATION

The project will involve the construction of a manufacturing plant building with 135,581 square feet, an office building with 10,018 square feet, a storage warehouse with 14,160 square feet, a mechanical shop with 7,200 square feet, and a metal canopy with 21,534 square feet.

Access to the site is provided via a cul-de-sac at the end of Fontana Way. There are two one-way driveways spaced out within this cul-de-sac: one for entering and one for exiting. A secondary entrance is via Singleton Dr at the southern portion of the proposed site. This entrance is dedicated to construction vehicles and will not be used for daily operations once construction of the site is complete.

SCOPING MEMO

See the attached Scoping Memo as provided by the City of Rialto's *Traffic Impact Analysis Report Guidelines and Requirements* (December 2013). It includes key expectations that will be included in the forth coming Traffic Impact Study (TIS).

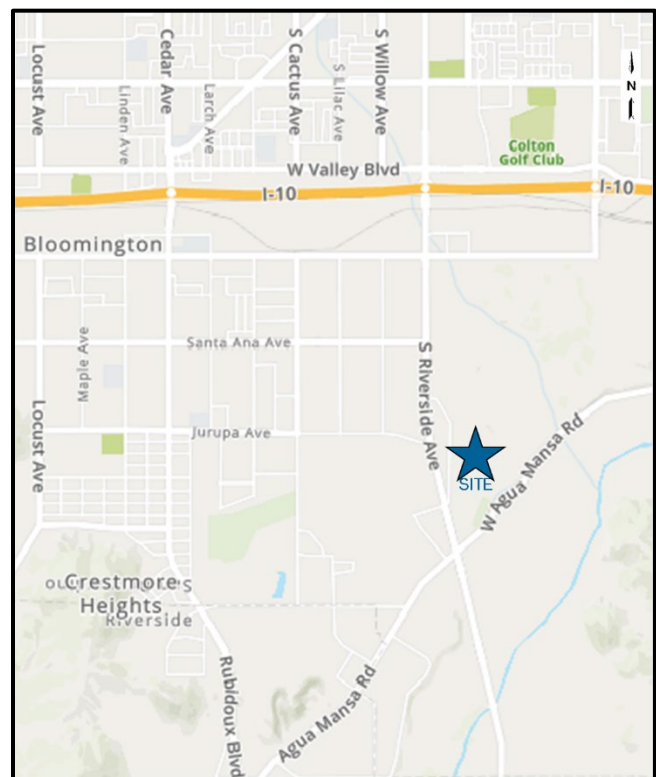


Exhibit B

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 2014.

City of Rialto

Traffic Impact Analysis

Scoping Agreement

Case No. MC 2020-0012

Related Cases -

SP No. _____

EIR No. _____

GPA No. _____

ZC No. _____

Project Name: Angelus Block Co., Inc. - Attachment 1 - Site Plan

Project Address: 0 Fortuna Way (no address at this time), Rialto CA 92316

Project Description: Construct Concrete Block Manufacturing Facility and Ancillary Site on Two Vacant Parcels

	<u>Consultant</u>	<u>Developer</u>
Name:	<u>NV5</u>	<u>Angelus Block Co., Inc.</u>
Address:	<u>3777 Long Beach Blvd, Annex Bldg</u>	<u>11374 Tuxford Street</u>
Telephone:	<u>Long Beach, CA 90807</u>	<u>Sun Valley, CA 91352</u>
Fax:	<u>(800) 608-3010</u>	<u>(818) 767-8576</u>
	<u>n/a</u>	<u>n/a</u>

1. Trip Generation Source: ITE Trip Generation Manual, most recent 10th Edition (2017)

Existing GP Land Use Vacant Proposed Land Use Manufacturing (140)

Current Zoning: Aqua Mansa Specific Plan Proposed Zoning: No Change

Total Daily Project Trips: 1,270 (with PCE) - Attachment 2 - Trip Generation Table

Current Trip Generation			Proposed Trip Generation (w/ PCE)			
	In	Out	Total	In	Out	Total
AM Trips	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>151</u>	<u>45</u>	<u>196</u>
PM Trips	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>65</u>	<u>147</u>	<u>213</u>
Internal Trip Allowance	Yes	No	X (<u>0</u> % Trip Discount)			
Pass-By Trip Allowance	Yes	No	X (<u>0</u> % 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.

Attachment 4 & 5 - Passenger Car and Truck Distribution

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

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

3. Background Growth Traffic

Project Completion Year: 2022 Annual Background Growth Rate: 2 %

Other Phase Years n/a

Other area projects to be considered: Attachment 6 & 7 - Cumulative projects map and list.

(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: Existing + Growth + Project, Cumulative Projects to Opening Year

4. Study Intersections: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies received.)
Attachment 3 - Study Area

- | | |
|---|---|
| 1. <u>S. Riverside Ave at I-10 WB ramps</u> | 6. <u>S. Riverside Ave at Resource Dr/Industrial Dr</u> |
| 2. <u>S. Riverside Ave at I-10 EB ramps</u> | 7. <u>S. Riverside Ave at Agua Mansa Rd</u> |
| 3. <u>S. Riverside Ave at Slover Ave</u> | 8. <u>Industrial Dr at Fortuna Way</u> |
| 4. <u>S. Riverside Ave at Santa Ana Ave</u> | 9. <u>S. Riverside Dr at W. Valley Blvd</u> |
| 5. <u>S. Riverside Ave at Industrial Dr</u> | 10. <u>S. Riverside Dr at Singleton Dr</u> |
| | 11. <u>S. Riverside Dr at Jurupa Ave</u> |

Traffic Impact Analysis – Report Guidelines and Requirements

Exhibit B
Scoping Agreement

12. Resource Dr at Enterprise Dr

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

- | | |
|---|-----------|
| 1. <u>S. Riverside Ave - Industrial Dr to Santa Ana Ave</u> | 6. _____ |
| 2. <u>S. Riverside Ave - Agua Mansa Rd to Resource Dr</u> | 7. _____ |
| 3. <u>S. Riverside Ave - Santa Ave to Slover Ave</u> | 8. _____ |
| 4. <u>S. Riverside Ave - Slover Ave to I-10 EB ramps</u> | 9. _____ |
| 5. <u>S. Riverside Ave - I-10 EB ramps to I-10 WB ramps</u> | 10. _____ |

6. Other Jurisdictional Impacts

Is this project within any other Agency's Sphere of Influence or within one-mile of another jurisdictional boundary? X YES NO

If so, name of Jurisdiction: City of Colton, City of Jurupa Valley and County of San Bernardino

7. Site Plan (please attach 11" x 17" legible copy) - see Attachment 1 - Site Plan

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.)

Fair-Share Analysis Table with industry standard cost estimate for each improvement

Peak Hour Signal Warrant Analysis for unsignalized study intersections

Site circulation discussion, including truck turning radii at site driveways with exhibit in report

VMT analysis

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: Due to pandemic, historical counts will be obtained and an annual growth rate applied to develop year "2020" counts. Methodology to be included in report.

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 01/20/2021Scoping Agreement Resubmittal date 03/31/2021

NV5		03/31/2021
Applicant/Engineer		Date

Land Use Concurrence:

Development Services Department	Date
---------------------------------	------

Approved by:

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.



$1'' = 60'-0''$	1
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Attachment 2
Angelus Block Co., Inc.

Summary of Project Trip Generation
Angelus Block Co., Inc.

Land Use ¹		Quantity	Units	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Manufacturing (LUC 140)		189,207	SF	758	90	27	117	39	88	127
Passenger Vehicles	60%			455	54	16	70	23	53	76
Trucks	40%			303	36	11	47	16	35	51
Vehicle Type	Vehicle Mix ²	Daily Vehicles	PCE Factor	Daily PCE Vehicles	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Passenger Vehicles	60.0%	455	1.0	455	54	16	70	23	53	76
2-Axle Trucks	0.8%	6	1.5	9	1	0	1	0	1	2
3-Axle Trucks	11.2%	85	2.0	170	20	6	26	9	20	28
4+ Axle Trucks	28.0%	212	3.0	637	76	23	98	33	74	107
Total Truck PCE Trips				816	97	29	126	42	95	137
Total Project PCE Trips				1,270	151	45	196	65	147	213

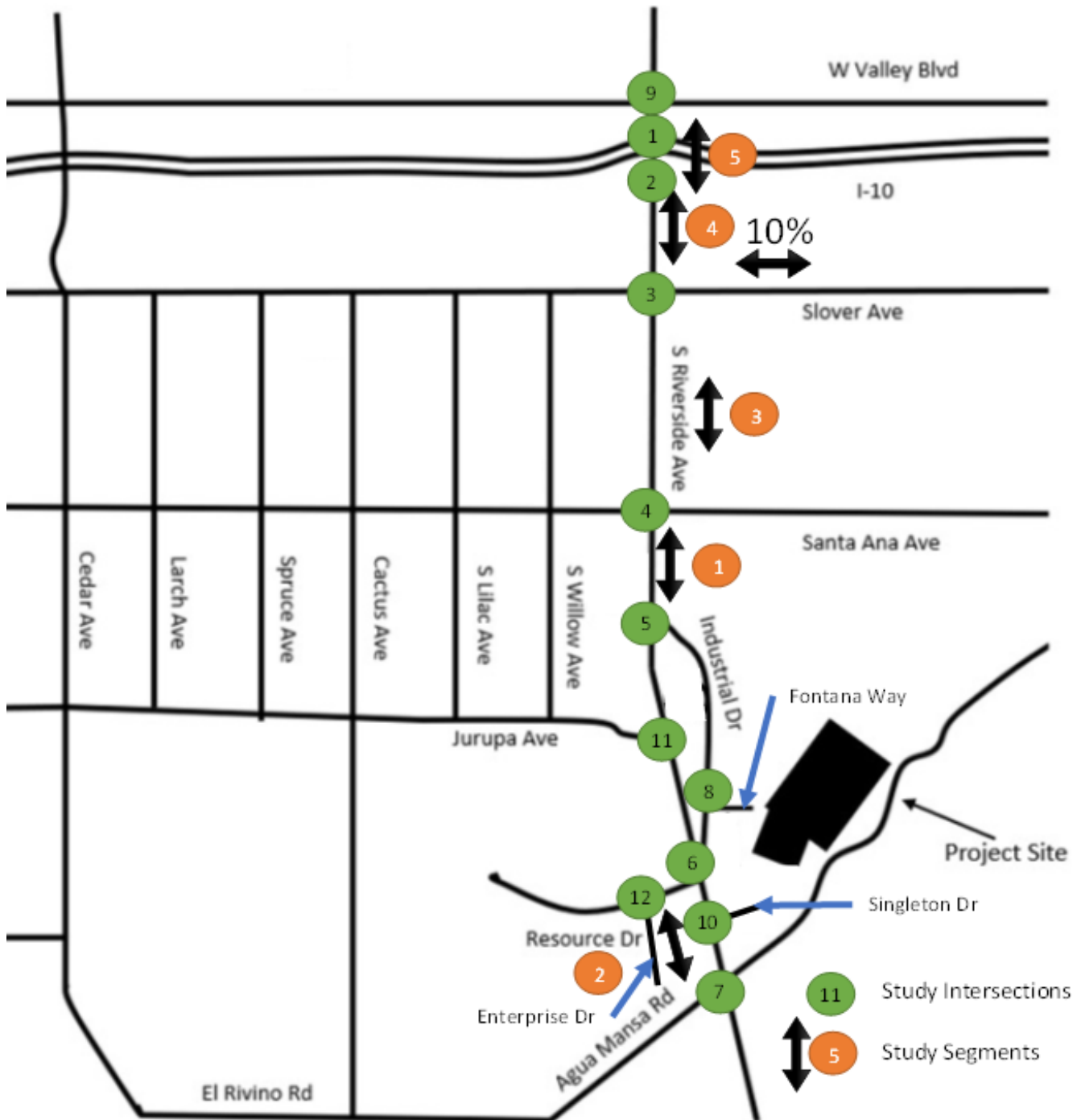
1 - Source: ITE Trip Generation Manual, 10th Edition

2 - Source: City of Rialto Traffic Impact Analysis Report Guidelines and Requirements, December 2013

PCE = Passenger Car Equivalent

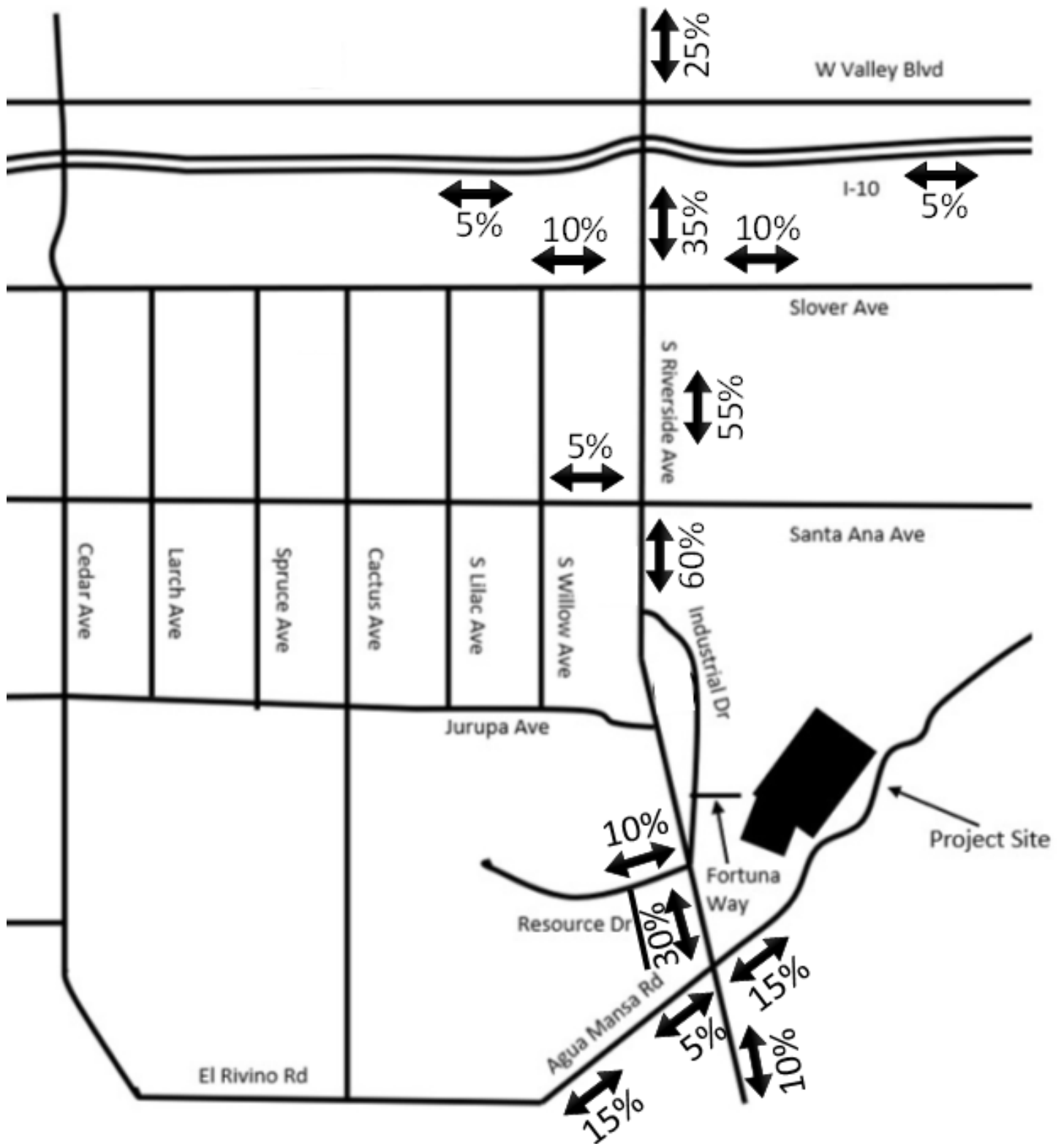
SF = Square Feet

Attachment 3
Angelus Block Co., Inc.
Study Area

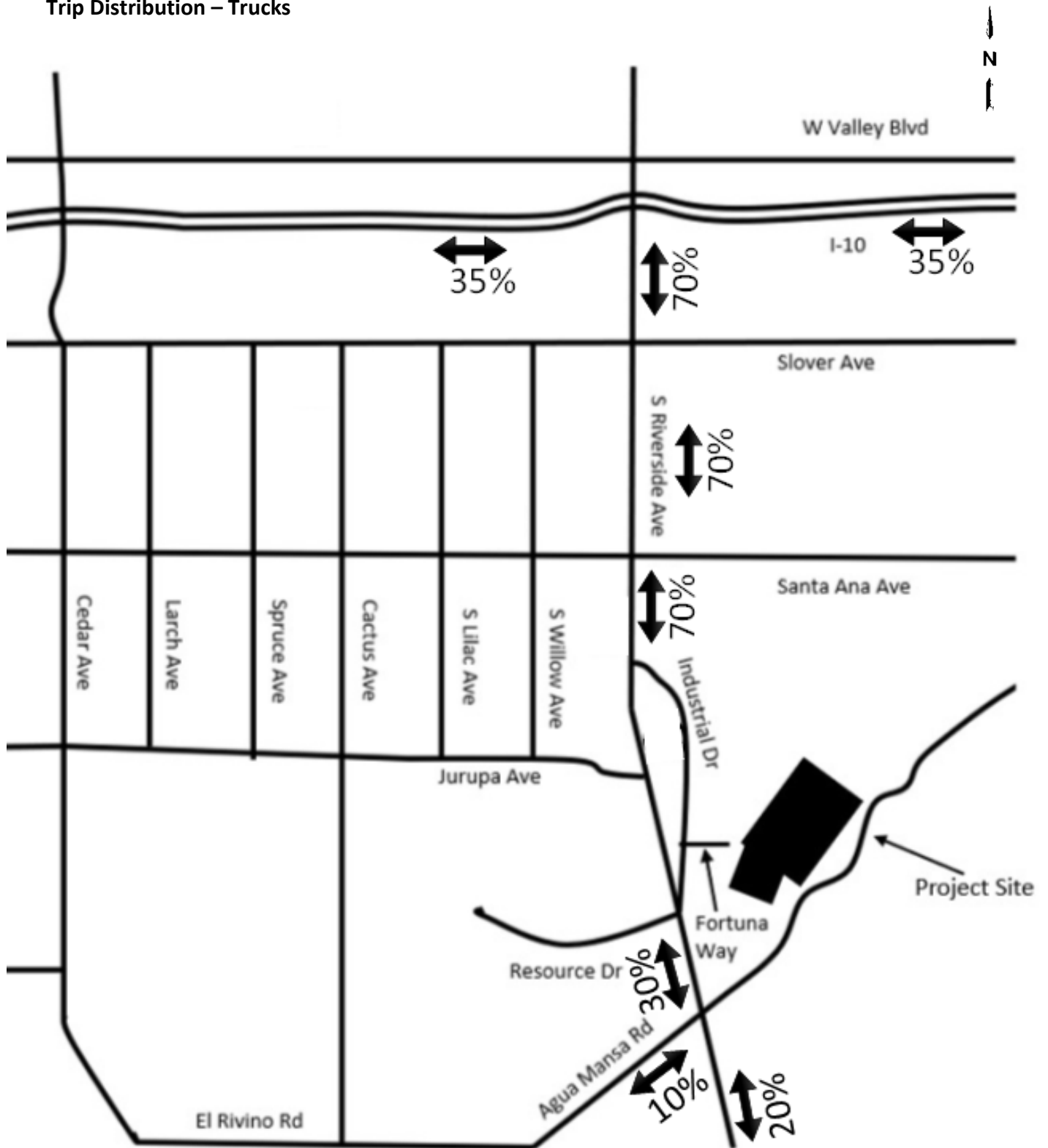


Attachment 4
Angelus Block Co., Inc.

Trip Distribution – Passenger Cars

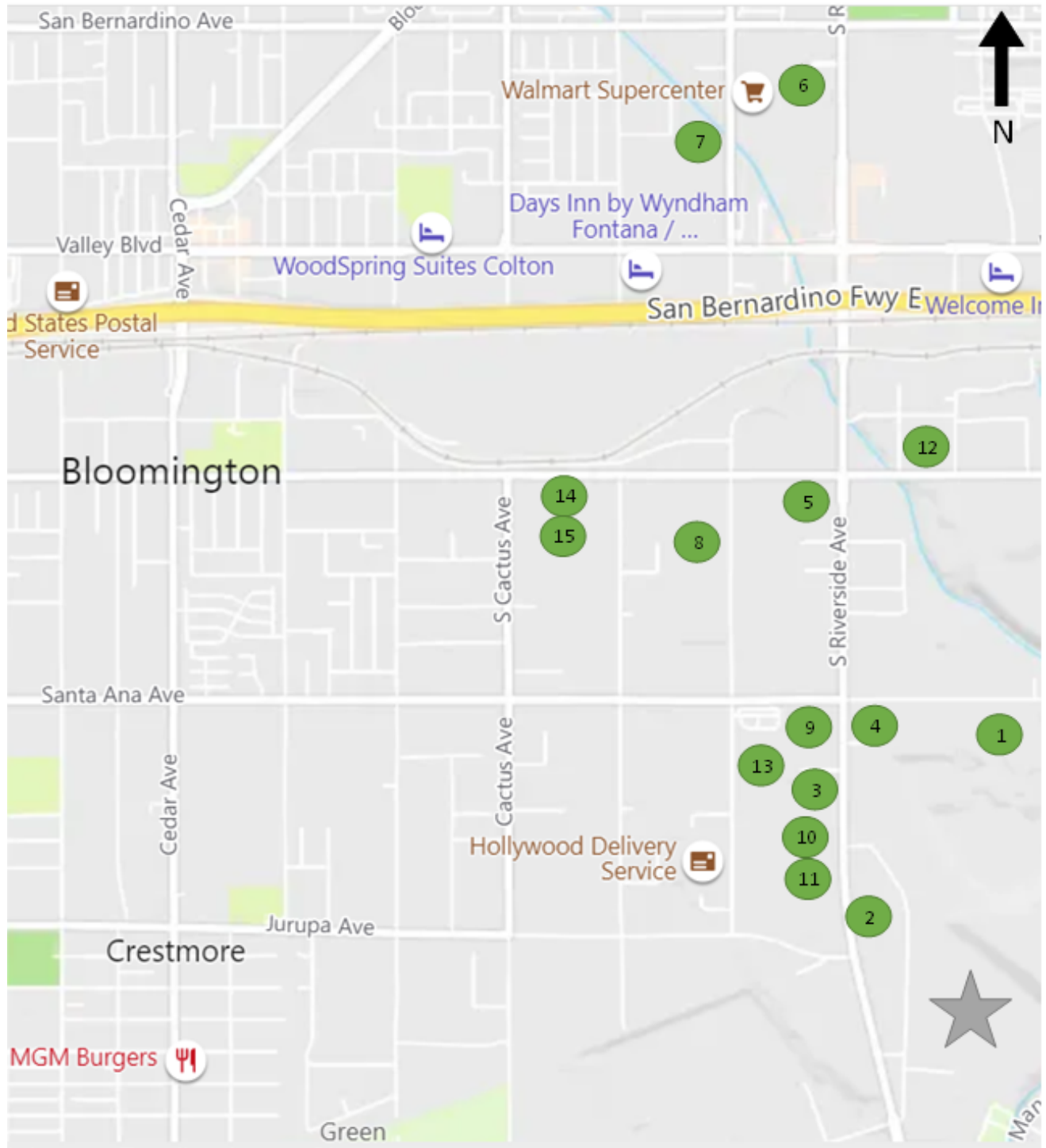


Attachment 5
Angelus Block Co., Inc.
Trip Distribution – Trucks



Attachment 6
Angelus Block Co., Inc.

Location of Cumulative Projects

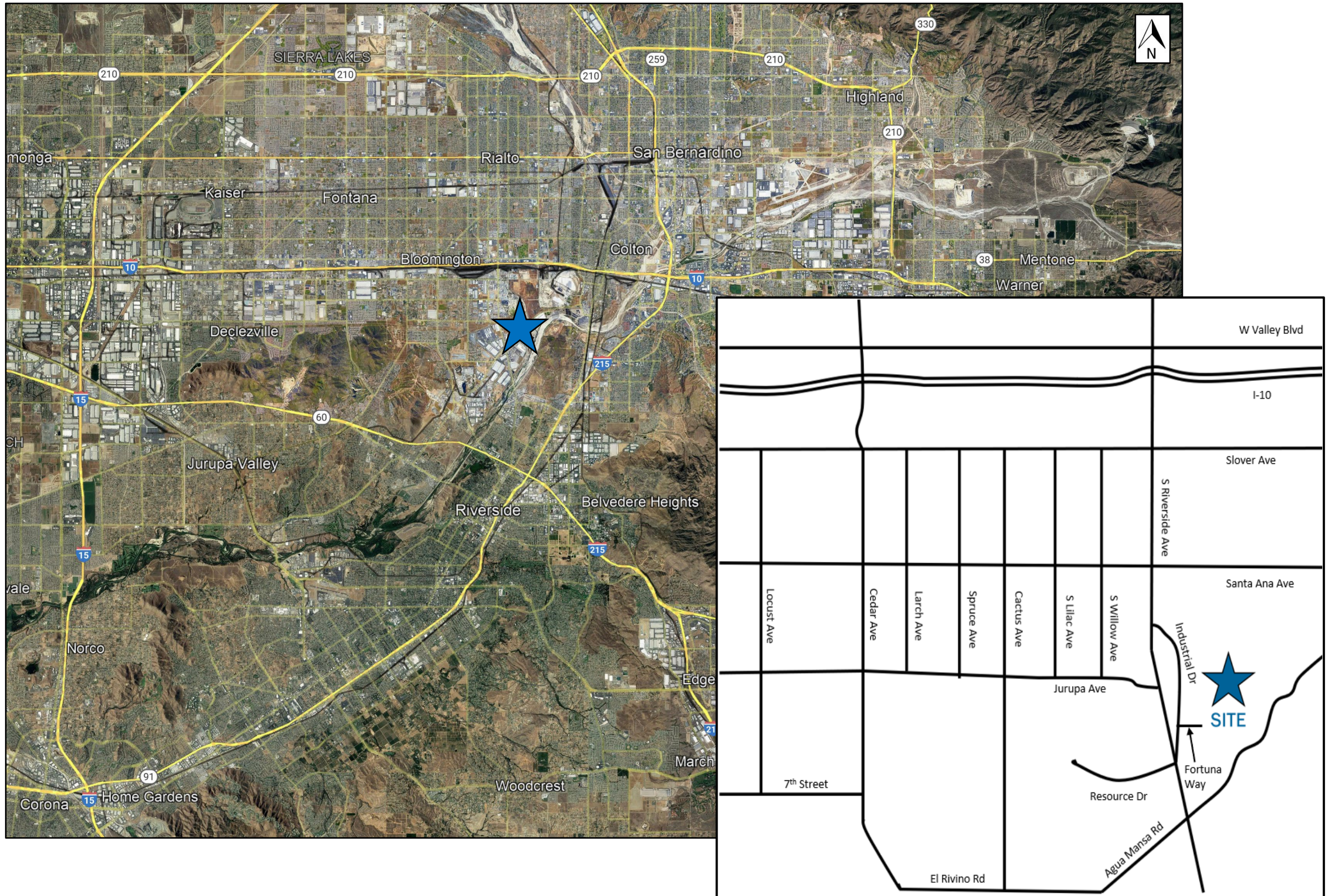


Attachment 7
Angelus Block Co., Inc. Summary of
Cumulative Projects

ID	Project Name	Land Use	Quantity	Units
1	South of Santa Ana Ave, East of Riverside Ave	Warehouse	370	TSF
2	SEC of Riverside Ave and Industrial Dr.	Trucking	3.58	AC
3	NWC of Riverside Ave and Industrial Dr.	Truck Drop	3.36	AC
4	SEC of Riversdie Ave and Santa Ana Ave.	Super Convenient Market/Gas Station	16	VFP
		Diesel Station	2	VFP
5	SWC of Riversdie Ave and Slover Ave.	Fast Food w/Drive Thru	5.2	TSF
6	North of Valley Blvd and west of Riverside Ave.	Warehouse	492.41	TSF
7	Valley/Willow Warehouse	Warehouse	492.41	TSF
8	Old Dominion Expansion	Parking Lot (407 Spaces)	7.78	AC
9	SC Fuels	Fuel Storage/Service	54.46	TSF
10	Lynn Trucking	Truck Parking Yard	3.07	AC
		Car Wash/Repair	8.827	TSF
11	Riverside Pallet Yard	Pallet Yard	3.58	AC
12	Onyx Paving	Contractor's Yard	0.77	AC
13	Bakery Addition	Bakery	14	TSF
14	Flyers Energy Addition	Warehouse	9.35	TSF
15	Lilac Avenue Truck Terminal	Trucking	9.44	AC

Appendix B – Vicinity Map

Angelus Block Co. Site Vicinity Map



Appendix C – Site Plan

APN 0260-061-66
D.S.F.L.F. CONSERVATION AREA
NOT A PART

APN 0260-061-67

APN 0260-061-62
NOT A PART

APN 0260-061-41

APN 0260-061-42

APN 0260-061-43
NOT A PART

APN 0260-061-18
AGUA MANSA CEMETERY
NOT A PART

APN 0260-061-21
AGUA MANSA CEMETERY
NOT A PART

APN 0260-061-39
WEST SB COUNTY WATER DISTRICT PROPERTY
NOT A PART

APN 0260-061-50
NOT A PART

APN 0260-061-52
NOT A PART

APN 0260-061-53
NOT A PART

PROPOSED MANUFACTURING PLANT BUILDING
F-1 OCCUPANCY
TYPE I-B CONSTRUCTION
135,581 S.F.
SINGLE STORY
FIRE SPRINKLERS: YES
USE: INDUSTRIAL / CONCRETE BLOCK MANUFACTURING

PROPOSED OFFICE BUILDING
B-2 OCCUPANCY
TYPE I-B CONSTRUCTION
10,018 S.F.
SINGLE STORY
FIRE SPRINKLERS: YES
USE: OFFICE

PROPOSED CANOPY STRUCTURE
F-1 OCCUPANCY
TYPE I-B CONSTRUCTION
21,534 S.F.
OPEN CANOPY STRUCTURE, SINGLE STORY
FIRE SPRINKLERS: YES
USE: INDUSTRIAL / MANUFACTURING (BLOCK SPLITTER, SHOTBLASTER, PALLET REPAIR)

PROPOSED INDUSTRIAL BUILDING
S-1 / F-1 OCCUPANCY
TYPE I-B CONSTRUCTION
21,360 S.F.
SINGLE STORY
FIRE SPRINKLERS: YES
USES:
• STORAGE WAREHOUSE (14,160 S.F.)
• INDUSTRIAL / MECHANIC SHOP / MANUFACTURING (7,200 S.F.)

WAREHOUSE
14,160 S.F.

MECH. SHOP
7,200 S.F.

ABOVE GROUND DIESEL TANK

WEST RIVERSIDE CANAL - DRY

AGUA MANSA ROAD

Fortuna Way

Singleton Drive

Area Description

Area Description	Area
Manufacturing Plant	135,581 SF
Office Building	10,018 SF
Canopy Structure	21,534 SF
Warehouse	14,160 SF
Mechanical Shop	7,200 SF
Total Area	188,493 SF

OVERALL SITE PLAN - FOR REFERENCE ONLY
SEE ENLARGED SITE PLANS FOR MORE INFORMATION

OVERALL REFERENCE SITE PLAN

EASEMENT INFORMATION (PER OFFICIAL LAND SURVEY):

- (A) SOUTHERN CALIFORNIA EDISON UTILITY EASEMENT
- (B) SOUTHERN CALIFORNIA EDISON UTILITY EASEMENT
- (C) WEST SAN BERNARDINO COUNTY WATER DISTRICT EASEMENT
- (D) WEST SAN BERNARDINO COUNTY WATER DISTRICT EASEMENT
- (E) UTILITY AND DRAINAGE EASEMENT

SITE ACCESSIBILITY - ACCESSIBLE ROUTES DISCUSSION

SITE ARRIVAL POINTS:

- PRIMARY INGRESS & EGRESS IS TO OCCUR AT FORTUNA WAY VIA VEHICULAR ACCESS ONLY.
- THERE IS NO PEDESTRIAN ACCESS TO THE SITE. NO PUBLIC SIDEWALK ALONG FORTUNA WAY OR SINGLETON DRIVE.

ACCESSIBLE PARKING SPACES PER CBC 11B-206.22 ARE THE ONLY ACCESSIBLE SITE ARRIVAL POINTS (NO PEDESTRIAN SITE ACCESS)

WITHIN THE SITE

- THE ONLY MEANS OF ACCESS BETWEEN ON-SITE ACCESSIBLE STRUCTURES ARE VEHICULAR WAYS. NOT PROVIDING PEDESTRIAN ACCESS. PEDESTRIAN ACCESS BETWEEN BUILDINGS IS NOT PERMITTED DUE TO HEAVY TRUCKING AND FORK-LIFT TRAFFIC.
- ACCESSIBLE VAN PARKING ARRIVAL POINT AND PATH OF TRAVEL ARE PROVIDED AT EACH ACCESSIBLE BUILDING.

ACCESSIBLE PATH OF TRAVEL IS NOT REQUIRED BETWEEN ON-SITE STRUCTURES PER CBC 11B-206.22, EXCEPTION (D) (SEE BELOW)

CBC 11B-206.22, EXCEPTION: AN ACCESSIBLE ROUTE SHALL NOT BE REQUIRED BETWEEN ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES IF THE ONLY MEANS OF ACCESS BETWEEN THEM IS A VEHICULAR WAY NOT PROVIDING PEDESTRIAN ACCESS.

ANGELUS BLOCK CO., INC.
PROPOSED MANUFACTURING FACILITY
APNs: 0260-061-67-0000 / 0260-061-41-0000 / 0260-061-42-0000
RIALTO, CA 92316

LONLI, INC.
architect + engineering
1080 Lake Dr #225 | West Covina, CA 91790
E: sam@lonliarchitect.com
www.lonliarchitect.com

LONLI architects

FRANK J. LONI
C-36616
EXPI. 7/31/2024

Drawn By
F. LONI

Permit No.

Permit Date

Sheet
A1.00

PLAN NORTH

1" = 60'-0"

1

Jcb Number
19-050

Appendix D – Historic Traffic Counts (in lieu of new existing counts)

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Wed, Feb 12, 20

LOCATION:
NORTH & SOUTH:
EAST & WEST:

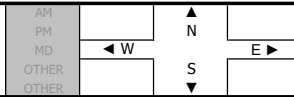
Rialto
Riverside
Valley

PROJECT #:
LOCATION #:
CONTROL:

SC2522
1
SIGNAL

NOTES:

Queue SB AM



Add U-Turns to Left Turns

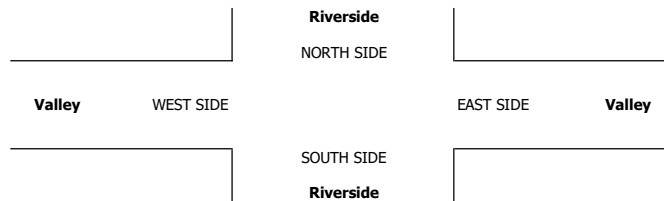
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Riverside			Riverside			Valley			Valley			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2.5	0.5	1	2.5	0.5	1	2	1	1	2	1	

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

AM	7:00 AM	60	139	34	16	278	7	5	45	119	34	43	9	789
	7:15 AM	90	155	17	12	259	6	10	31	147	54	34	4	819
	7:30 AM	89	160	35	12	317	7	7	50	134	35	48	11	905
	7:45 AM	89	153	53	18	252	8	12	47	114	28	31	8	813
	8:00 AM	52	140	41	10	246	16	10	70	116	29	33	15	778
	8:15 AM	66	144	47	18	202	8	13	35	88	36	54	12	723
	8:30 AM	65	157	37	13	196	13	16	39	99	26	36	17	714
	8:45 AM	77	192	31	8	176	11	11	31	84	33	26	13	693
	VOLUMES	588	1,240	295	107	1,926	76	84	348	901	275	305	89	6,234
	APPROACH %	28%	58%	14%	5%	91%	4%	6%	26%	68%	41%	46%	13%	
PM	APP/DEPART	2,123	/	1,412	2,109	/	3,108	1,333	/	751	669	/	963	0
	BEGIN PEAK HR	7:00 AM												
	VOLUMES	328	607	139	58	1,106	28	34	173	514	151	156	32	3,326
	APPROACH %	31%	57%	13%	5%	93%	2%	5%	24%	71%	45%	46%	9%	
	PEAK HR FACTOR	0.910			0.887			0.944			0.902			0.919
	APP/DEPART	1,074	/	671	1,192	/	1,776	721	/	370	339	/	509	0
	4:00 PM	130	363	49	20	198	12	13	66	118	39	77	29	1,114
	4:15 PM	114	290	36	18	202	13	22	65	110	39	46	28	983
	4:30 PM	101	338	47	16	185	6	21	60	122	24	54	31	1,005
	4:45 PM	124	305	36	19	198	15	23	61	122	46	79	28	1,056
	5:00 PM	135	302	64	16	191	12	23	62	120	45	67	38	1,075
	5:15 PM	143	313	31	21	162	7	14	72	129	42	85	31	1,050
	5:30 PM	141	335	32	22	232	20	31	56	106	39	64	29	1,107
	5:45 PM	123	283	29	19	186	16	25	51	93	30	54	24	933
	VOLUMES	1,011	2,529	324	151	1,554	101	172	493	920	304	526	238	8,323
	APPROACH %	26%	65%	8%	8%	86%	6%	11%	31%	58%	28%	49%	22%	
	APP/DEPART	3,864	/	2,935	1,806	/	2,773	1,585	/	971	1,068	/	1,644	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	543	1,255	163	78	783	54	91	251	477	172	295	126	4,288
	APPROACH %	28%	64%	8%	9%	86%	6%	11%	31%	58%	29%	50%	21%	
	PEAK HR FACTOR	0.965			0.835			0.952			0.938			0.968
	APP/DEPART	1,961	/	1,466	915	/	1,429	819	/	494	593	/	899	0

2	1	1	0	4
1	1	2	1	5
3	0	0	0	3
1	0	1	1	3
2	2	1	0	5
1	1	0	1	3
1	0	1	1	3
1	0	0	2	3
12	5	6	6	29

1	0	1	0	2
1	0	0	2	3
0	1	0	1	2
0	0	5	0	5
1	0	3	0	4
1	0	0	4	5
0	3	1	1	5
0	2	0	1	3
4	6	10	9	29



National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & I-10 WB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

Total

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 WB Ramps				I-10 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	0 NR	0 NU	0 SL	4 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
7:00 AM	36	194	0	5	0	241	145	0	0	0	0	0	111	2	95	0	829
7:15 AM	37	185	0	3	0	253	146	0	0	0	0	0	106	1	89	0	820
7:30 AM	30	211	0	2	0	270	141	0	0	0	0	0	90	1	88	0	833
7:45 AM	45	230	0	3	0	233	86	0	0	0	0	0	113	1	78	0	789
8:00 AM	35	176	0	0	0	248	123	0	0	0	0	0	94	0	64	0	740
8:15 AM	37	163	0	3	0	238	119	0	0	0	0	0	87	3	86	0	736
8:30 AM	48	184	0	2	0	225	114	0	0	0	0	0	81	0	96	0	750
8:45 AM	45	201	0	0	0	199	102	0	0	0	0	0	71	0	80	0	698
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	313	1544	0	18	0	1907	976	0	0	0	0	0	753	8	676	0	6195
	16.69%	82.35%	0.00%	0.96%	0.00%	66.15%	33.85%	0.00%					52.40%	0.56%	47.04%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	148	820	0	13	0	997	518	0	0	0	0	0	420	5	350	0	3271
PEAK HR FACTOR :	0.822	0.891	0.000	0.650	0.000	0.923	0.887	0.000	0.000	0.000	0.000	0.000	0.929	0.625	0.921	0.000	0.982
	0.882				0.922								0.931				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	0 NR	0 NU	0 SL	4 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
4:00 PM	58	356	0	0	0	266	102	0	0	0	0	0	93	1	127	0	1003
4:15 PM	51	343	0	1	0	252	104	0	0	0	0	0	90	0	118	0	959
4:30 PM	61	356	0	0	0	294	97	0	0	0	0	0	95	0	144	0	1047
4:45 PM	61	357	0	0	0	263	89	0	0	0	0	0	99	0	112	0	981
5:00 PM	60	374	0	0	0	301	92	0	0	0	0	0	114	0	109	0	1050
5:15 PM	59	385	0	0	0	261	96	0	0	0	0	0	116	2	143	0	1062
5:30 PM	49	368	0	0	0	266	105	0	0	0	0	0	121	1	119	0	1029
5:45 PM	52	361	0	0	0	244	84	0	0	0	0	0	113	0	98	0	952
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	451	2900	0	1	0	2147	769	0	0	0	0	0	841	4	970	0	8083
	13.45%	86.52%	0.00%	0.03%	0.00%	73.63%	26.37%	0.00%					46.34%	0.22%	53.44%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	241	1472	0	0	0	1119	374	0	0	0	0	0	424	2	508	0	4140
PEAK HR FACTOR :	0.988	0.956	0.000	0.000	0.000	0.929	0.964	0.000	0.000	0.000	0.000	0.000	0.914	0.250	0.882	0.000	0.975
	0.965				0.950								0.895				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & I-10 WB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

Cars

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 WB Ramps				I-10 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	0 NR	0 NU	0 SL	4 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
7:00 AM	12	181	0	5	0	232	141	0	0	0	0	0	90	2	94	0	757
7:15 AM	9	168	0	3	0	245	146	0	0	0	0	0	88	1	87	0	747
7:30 AM	15	199	0	2	0	268	136	0	0	0	0	0	75	1	84	0	780
7:45 AM	19	221	0	3	0	227	84	0	0	0	0	0	97	1	72	0	724
8:00 AM	17	165	0	0	0	240	122	0	0	0	0	0	70	0	62	0	676
8:15 AM	11	145	0	3	0	225	113	0	0	0	0	0	46	3	81	0	627
8:30 AM	14	169	0	2	0	212	110	0	0	0	0	0	55	0	91	0	653
8:45 AM	19	184	0	0	0	179	97	0	0	0	0	0	57	0	80	0	616
TOTAL VOLUMES :	NL 116	NT 1432	NR 0	NU 18	SL 0	ST 1828	SR 949	SU 0	EL 0	ET 0	ER 0	EU 0	WL 578	WT 8	WR 651	WU 0	TOTAL 5580
APPROACH %'s :	7.41%	91.44%	0.00%	1.15%	0.00%	65.83%	34.17%	0.00%					46.73%	0.65%	52.63%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	55	769	0	13	0	972	507	0	0	0	0	0	350	5	337	0	3008
PEAK HR FACTOR :	0.72	0.870	0.000	0.650	0.000	0.907	0.868	0.000	0.000	0.000	0.000	0.000	0.902	0.625	0.896	0.000	0.964
	0.861				0.915								0.930				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	0 NR	0 NU	0 SL	4 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
4:00 PM	41	348	0	0	0	255	100	0	0	0	0	0	74	0	124	0	942
4:15 PM	38	332	0	0	0	240	101	0	0	0	0	0	61	0	114	0	886
4:30 PM	46	345	0	0	0	289	94	0	0	0	0	0	67	0	140	0	981
4:45 PM	48	346	0	0	0	256	85	0	0	0	0	0	79	0	108	0	922
5:00 PM	46	365	0	0	0	292	90	0	0	0	0	0	94	0	109	0	996
5:15 PM	49	375	0	0	0	254	94	0	0	0	0	0	105	2	140	0	1019
5:30 PM	39	363	0	0	0	258	101	0	0	0	0	0	101	1	115	0	978
5:45 PM	39	356	0	0	0	240	84	0	0	0	0	0	80	0	95	0	894
TOTAL VOLUMES :	NL 346	NT 2830	NR 0	NU 0	SL 0	ST 2084	SR 749	SU 0	EL 0	ET 0	ER 0	EU 0	WL 661	WT 3	WR 945	WU 0	TOTAL 7618
APPROACH %'s :	10.89%	89.11%	0.00%	0.00%	0.00%	73.56%	26.44%	0.00%					41.08%	0.19%	58.73%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	189	1431	0	0	0	1091	363	0	0	0	0	0	345	2	497	0	3918
PEAK HR FACTOR :	0.96	0.954	0.000	0.000	0.000	0.934	0.965	0.000	0.000	0.000	0.000	0.000	0.821	0.250	0.888	0.000	0.961
	0.955				0.949								0.854				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & I-10 WB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

2axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 WB Ramps				I-10 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	0 NR	0 NU	0 SL	4 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
7:00 AM	6	4	0	0	0	7	1	0	0	0	0	0	5	0	1	0	24
7:15 AM	5	8	0	0	0	5	0	0	0	0	0	0	9	0	2	0	29
7:30 AM	4	6	0	0	0	1	3	0	0	0	0	0	4	0	3	0	21
7:45 AM	3	5	0	0	0	5	1	0	0	0	0	0	1	0	5	0	20
8:00 AM	2	4	0	0	0	3	0	0	0	0	0	0	2	0	2	0	13
8:15 AM	4	8	0	0	0	10	1	0	0	0	0	0	4	0	4	0	31
8:30 AM	7	3	0	0	0	11	1	0	0	0	0	0	3	0	4	0	29
8:45 AM	6	9	0	0	0	12	3	0	0	0	0	0	2	0	0	0	32
TOTAL VOLUMES :	NL 37	NT 47	NR 0	NU 0	SL 0	ST 54	SR 10	SU 0	EL 0	ET 0	ER 0	EU 0	WL 30	WT 0	WR 21	WU 0	TOTAL 199
APPROACH %'s :	44.05%	55.95%	0.00%	0.00%	0.00%	84.38%	15.63%	0.00%					58.82%	0.00%	41.18%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	18	23	0	0	0	18	5	0	0	0	0	0	19	0	11	0	94
PEAK HR FACTOR :	0.750	0.719	0.000	0.000	0.000	0.643	0.417	0.000	0.000	0.000	0.000	0.000	0.528	0.000	0.550	0.000	0.810
	0.788				0.719								0.682				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	0 NR	0 NU	0 SL	4 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
4:00 PM	2	3	0	0	0	6	0	0	0	0	0	0	3	1	2	0	17
4:15 PM	0	1	0	0	0	9	3	0	0	0	0	0	5	0	2	0	20
4:30 PM	3	7	0	0	0	1	0	0	0	0	0	0	4	0	3	0	18
4:45 PM	2	6	0	0	0	4	0	0	0	0	0	0	4	0	3	0	19
5:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	4	0	0	0	12
5:15 PM	1	8	0	0	0	1	2	0	0	0	0	0	2	0	1	0	15
5:30 PM	0	1	0	0	0	2	1	0	0	0	0	0	3	0	2	0	9
5:45 PM	1	2	0	0	0	3	0	0	0	0	0	0	4	0	1	0	11
TOTAL VOLUMES :	NL 9	NT 32	NR 0	NU 0	SL 0	ST 30	SR 6	SU 0	EL 0	ET 0	ER 0	EU 0	WL 29	WT 1	WR 14	WU 0	TOTAL 121
APPROACH %'s :	21.95%	78.05%	0.00%	0.00%	0.00%	83.33%	16.67%	0.00%					65.91%	2.27%	31.82%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	6	25	0	0	0	10	2	0	0	0	0	0	14	0	7	0	64
PEAK HR FACTOR :	0.50	0.781	0.000	0.000	0.000	0.625	0.250	0.000	0.000	0.000	0.000	0.000	0.875	0.000	0.583	0.000	0.842
	0.775				0.750								0.750				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & I-10 WB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

3axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 WB Ramps				I-10 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2	3	0	0	0	4	1	0	0	0	0	0	1.3	0.3	1.3	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	4	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	9
7:15 AM	6	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	9
7:30 AM	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
7:45 AM	2	2	0	0	0	1	0	0	0	0	0	0	2	0	0	0	7
8:00 AM	4	3	0	0	0	3	0	0	0	0	0	0	4	0	0	0	14
8:15 AM	5	4	0	0	0	1	0	0	0	0	0	0	4	0	0	0	14
8:30 AM	4	3	0	0	0	1	1	0	0	0	0	0	3	0	0	0	12
8:45 AM	4	3	0	0	0	3	0	0	0	0	0	0	3	0	0	0	13
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	34	17	0	0	0	10	1	0	0	0	0	0	21	0	0	0	83
	66.67%	33.33%	0.00%	0.00%	0.00%	90.91%	9.09%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	17	4	0	0	0	2	0	0	0	0	0	0	7	0	0	0	30
PEAK HR FACTOR :	0.708	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.438	0.000	0.000	0.000	0.833
	0.750				0.500								0.438				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2	3	0	0	0	4	1	0	0	0	0	0	1.3	0.3	1.3	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	5	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	8
4:15 PM	4	6	0	1	0	2	0	0	0	0	0	0	4	0	0	0	17
4:30 PM	3	1	0	0	0	1	2	0	0	0	0	0	2	0	1	0	10
4:45 PM	1	2	0	0	0	1	2	0	0	0	0	0	4	0	0	0	10
5:00 PM	3	2	0	0	0	2	1	0	0	0	0	0	1	0	0	0	9
5:15 PM	2	1	0	0	0	4	0	0	0	0	0	0	2	0	0	0	9
5:30 PM	2	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	6
5:45 PM	3	2	0	0	0	1	0	0	0	0	0	0	9	0	1	0	16
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	23	15	0	1	0	12	8	0	0	0	0	0	24	0	2	0	85
	58.97%	38.46%	0.00%	2.56%	0.00%	60.00%	40.00%	0.00%					92.31%	0.00%	7.69%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	9	6	0	0	0	8	5	0	0	0	0	0	9	0	1	0	38
PEAK HR FACTOR :	0.75	0.750	0.000	0.000	0.000	0.500	0.625	0.000	0.000	0.000	0.000	0.000	0.563	0.000	0.250	0.000	0.950
	0.750				0.813								0.625				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & I-10 WB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

4axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 WB Ramps				I-10 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	0 NR	0 NU	0 SL	4 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
7:00 AM	14	8	0	0	0	2	3	0	0	0	0	0	12	0	0	0	39
7:15 AM	17	8	0	0	0	2	0	0	0	0	0	0	8	0	0	0	35
7:30 AM	6	6	0	0	0	1	2	0	0	0	0	0	11	0	1	0	27
7:45 AM	21	2	0	0	0	0	1	0	0	0	0	0	13	0	1	0	38
8:00 AM	12	4	0	0	0	2	1	0	0	0	0	0	18	0	0	0	37
8:15 AM	17	6	0	0	0	2	5	0	0	0	0	0	33	0	1	0	64
8:30 AM	23	9	0	0	0	1	2	0	0	0	0	0	20	0	1	0	56
8:45 AM	16	5	0	0	0	5	2	0	0	0	0	0	9	0	0	0	37
TOTAL VOLUMES :	NL 126	NT 48	NR 0	NU 0	SL 0	ST 15	SR 16	SU 0	EL 0	ET 0	ER 0	EU 0	WL 124	WT 0	WR 4	WU 0	TOTAL 333
APPROACH %'s :	72.41%	27.59%	0.00%	0.00%	0.00%	48.39%	51.61%	0.00%					96.88%	0.00%	3.13%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	58	24	0	0	0	5	6	0	0	0	0	0	44	0	2	0	139
PEAK HR FACTOR :	0.690	0.750	0.000	0.000	0.000	0.625	0.500	0.000	0.000	0.000	0.000	0.000	0.846	0.000	0.500	0.000	0.891
	0.820				0.550								0.821				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	0 NR	0 NU	0 SL	4 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
4:00 PM	10	5	0	0	0	5	1	0	0	0	0	0	14	0	1	0	36
4:15 PM	9	4	0	0	0	1	0	0	0	0	0	0	20	0	2	0	36
4:30 PM	9	3	0	0	0	3	1	0	0	0	0	0	22	0	0	0	38
4:45 PM	10	3	0	0	0	2	2	0	0	0	0	0	12	0	1	0	30
5:00 PM	11	3	0	0	0	3	1	0	0	0	0	0	15	0	0	0	33
5:15 PM	7	1	0	0	0	2	0	0	0	0	0	0	7	0	2	0	19
5:30 PM	8	3	0	0	0	5	1	0	0	0	0	0	17	0	2	0	36
5:45 PM	9	1	0	0	0	0	0	0	0	0	0	0	20	0	1	0	31
TOTAL VOLUMES :	NL 73	NT 23	NR 0	NU 0	SL 0	ST 21	SR 6	SU 0	EL 0	ET 0	ER 0	EU 0	WL 127	WT 0	WR 9	WU 0	TOTAL 259
APPROACH %'s :	76.04%	23.96%	0.00%	0.00%	0.00%	77.78%	22.22%	0.00%					93.38%	0.00%	6.62%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	37	10	0	0	0	10	4	0	0	0	0	0	56	0	3	0	120
PEAK HR FACTOR :	0.84	0.833	0.000	0.000	0.000	0.833	0.500	0.000	0.000	0.000	0.000	0.000	0.636	0.000	0.375	0.000	0.789
	0.839				0.875								0.670				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & I-10 EB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

Total

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 EB Ramps				I-10 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2.5	0.5	0	2	2	0	0	1.3	0.3	1.3	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	169	75	1	75	261	0	2	64	2	61	0	0	0	0	0	710
7:15 AM	0	156	51	0	106	271	0	0	72	4	70	0	0	0	0	0	730
7:30 AM	0	154	71	0	103	251	0	0	88	0	90	0	0	0	0	0	757
7:45 AM	0	188	71	0	89	263	0	0	88	1	102	0	0	0	0	0	802
8:00 AM	0	153	71	0	97	260	0	0	65	0	61	0	0	0	0	0	707
8:15 AM	0	141	80	0	94	240	0	0	73	0	79	0	0	0	0	0	707
8:30 AM	0	142	63	0	115	199	0	1	84	1	67	0	0	0	0	0	672
8:45 AM	0	181	112	0	85	187	0	0	78	1	61	0	0	0	0	0	705
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1284	594	1	764	1932	0	3	612	9	591	0	0	0	0	0	5790
	0.00%	68.33%	31.61%	0.05%	28.31%	71.58%	0.00%	0.11%	50.50%	0.74%	48.76%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	667	268	1	373	1046	0	2	312	7	323	0	0	0	0	0	2999
PEAK HR FACTOR :	0.000	0.887	0.893	0.250	0.880	0.965	0.000	0.250	0.886	0.438	0.792	0.000	0.000	0.000	0.000	0.000	0.935
		0.903				0.942				0.840							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2.5	0.5	0	2	2	0	0	1.3	0.3	1.3	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	259	115	0	123	236	0	0	159	0	69	0	0	0	0	0	961
4:15 PM	0	255	141	0	118	218	0	0	140	0	73	0	0	0	0	0	945
4:30 PM	0	300	124	0	140	259	0	0	122	0	50	0	0	0	0	0	995
4:45 PM	0	289	116	0	103	266	0	0	126	1	50	0	0	0	0	0	951
5:00 PM	0	285	129	0	124	293	0	0	152	0	65	0	0	0	0	0	1048
5:15 PM	0	316	125	0	100	274	0	0	140	0	96	0	0	0	0	0	1051
5:30 PM	0	290	106	0	97	290	0	0	126	0	81	0	0	0	0	0	990
5:45 PM	0	279	131	0	115	265	0	1	146	0	64	0	0	0	0	0	1001
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	2273	987	0	920	2101	0	1	1111	1	548	0	0	0	0	0	7942
	0.00%	69.72%	30.28%	0.00%	30.44%	69.52%	0.00%	0.03%	66.93%	0.06%	33.01%	0.00%					
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	1170	491	0	436	1122	0	1	564	0	306	0	0	0	0	0	4090
PEAK HR FACTOR :	0.000	0.926	0.937	0.000	0.879	0.957	0.000	0.250	0.928	0.000	0.797	0.000	0.000	0.000	0.000	0.000	0.973
		0.942				0.935				0.922							

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & I-10 EB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

Cars

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 EB Ramps				I-10 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2.5	0.5	0	2	2	0	0	1.3	0.3	1.3	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	129	57	1	71	236	0	2	62	1	45	0	0	0	0	0	604
7:15 AM	0	120	35	0	102	249	0	0	66	3	56	0	0	0	0	0	631
7:30 AM	0	132	53	0	103	236	0	0	85	0	64	0	0	0	0	0	673
7:45 AM	0	153	50	0	86	242	0	0	86	1	81	0	0	0	0	0	699
8:00 AM	0	127	48	0	95	228	0	0	62	0	44	0	0	0	0	0	604
8:15 AM	0	104	50	0	85	196	0	0	63	0	58	0	0	0	0	0	556
8:30 AM	0	101	37	0	108	168	0	1	81	0	40	0	0	0	0	0	536
8:45 AM	0	141	66	0	80	158	0	0	71	1	31	0	0	0	0	0	548
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1007	396	1	730	1713	0	3	576	6	419	0	0	0	0	0	4851
	0.00%	71.72%	28.21%	0.07%	29.84%	70.03%	0.00%	0.12%	57.54%	0.60%	41.86%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	534	195	1	362	963	0	2	299	5	246	0	0	0	0	0	2607
PEAK HR FACTOR :	0.00	0.873	0.855	0.250	0.879	0.967	0.000	0.250	0.869	0.417	0.759	0.000	0.000	0.000	0.000	0.000	0.932
	0.899				0.945				0.818								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2.5	0.5	0	2	2	0	0	1.3	0.3	1.3	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	239	97	0	120	208	0	0	157	0	53	0	0	0	0	0	874
4:15 PM	0	235	122	0	117	179	0	0	134	0	52	0	0	0	0	0	839
4:30 PM	0	281	103	0	139	228	0	0	114	0	31	0	0	0	0	0	896
4:45 PM	0	261	97	0	101	242	0	0	125	1	41	0	0	0	0	0	868
5:00 PM	0	270	110	0	122	268	0	0	149	0	44	0	0	0	0	0	963
5:15 PM	0	293	112	0	99	257	0	0	140	0	82	0	0	0	0	0	983
5:30 PM	0	279	93	0	96	261	0	0	124	0	64	0	0	0	0	0	917
5:45 PM	0	261	112	0	114	229	0	1	145	0	41	0	0	0	0	0	903
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	2119	846	0	908	1872	0	1	1088	1	408	0	0	0	0	0	7243
	0.00%	71.47%	28.53%	0.00%	32.65%	67.31%	0.00%	0.04%	72.68%	0.07%	27.25%	0.00%					
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	1103	427	0	431	1015	0	1	558	0	231	0	0	0	0	0	3766
PEAK HR FACTOR :	0.00	0.941	0.953	0.000	0.883	0.947	0.000	0.250	0.936	0.000	0.704	0.000	0.000	0.000	0.000	0.000	0.958
	0.944				0.928				0.889								

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & I-10 EB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

2axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 EB Ramps				I-10 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2.5 NT	0.5 NR	0 NU	2 SL	2 ST	0 SR	0 SU	1.3 EL	0.3 ET	1.3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	0	14	2	0	3	8	0	0	1	1	1	0	0	0	0	0	30
7:15 AM	0	4	3	0	2	11	0	0	6	1	2	0	0	0	0	0	29
7:30 AM	0	8	5	0	0	4	0	0	2	0	2	0	0	0	0	0	21
7:45 AM	0	8	2	0	3	4	0	0	0	0	6	0	0	0	0	0	23
8:00 AM	0	6	4	0	1	6	0	0	1	0	5	0	0	0	0	0	23
8:15 AM	0	7	5	0	6	8	0	0	6	0	2	0	0	0	0	0	34
8:30 AM	0	8	6	0	6	7	0	0	1	1	3	0	0	0	0	0	32
8:45 AM	0	10	24	0	4	10	0	0	4	0	3	0	0	0	0	0	55
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	65	51	0	25	58	0	0	21	3	24	0	0	0	0	0	247
	0.00%	56.03%	43.97%	0.00%	30.12%	69.88%	0.00%	0.00%	43.75%	6.25%	50.00%	0.00%	0	0	0	0	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	34	12	0	8	27	0	0	9	2	11	0	0	0	0	0	103
PEAK HR FACTOR :	0.000	0.607	0.600	0.000	0.667	0.614	0.000	0.000	0.375	0.500	0.458	0.000	0.000	0.000	0.000	0.000	0.858
	0.719				0.673				0.611								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2.5 NT	0.5 NR	0 NU	2 SL	2 ST	0 SR	0 SU	1.3 EL	0.3 ET	1.3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	6	4	0	1	8	0	0	0	0	4	0	0	0	0	0	23
4:15 PM	0	1	2	0	1	12	0	0	0	0	4	0	0	0	0	0	20
4:30 PM	0	7	0	0	0	4	0	0	4	0	3	0	0	0	0	0	18
4:45 PM	0	9	2	0	1	8	0	0	0	0	0	0	0	0	0	0	20
5:00 PM	0	1	0	0	1	7	0	0	1	0	2	0	0	0	0	0	12
5:15 PM	0	6	4	0	0	3	0	0	0	0	1	0	0	0	0	0	14
5:30 PM	0	2	2	0	0	6	0	0	1	0	1	0	0	0	0	0	12
5:45 PM	0	4	3	0	1	5	0	0	0	0	3	0	0	0	0	0	16
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	36	17	0	5	53	0	0	6	0	18	0	0	0	0	0	135
	0.00%	67.92%	32.08%	0.00%	8.62%	91.38%	0.00%	0.00%	25.00%	0.00%	75.00%	0.00%	0	0	0	0	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	13	9	0	2	21	0	0	2	0	7	0	0	0	0	0	54
PEAK HR FACTOR :	0.00	0.542	0.563	0.000	0.500	0.750	0.000	0.000	0.500	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.844
	0.550				0.719				0.750								

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & I-10 EB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

3axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 EB Ramps				I-10 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2.5 NT	0.5 NR	0 NU	2 SL	2 ST	0 SR	0 SU	1.3 EL	0.3 ET	1.3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	0	4	1	0	0	6	0	0	1	0	3	0	0	0	0	0	15
7:15 AM	0	8	2	0	1	1	0	0	0	0	3	0	0	0	0	0	15
7:30 AM	0	4	2	0	0	0	0	0	0	0	2	0	0	0	0	0	8
7:45 AM	0	4	5	0	0	3	0	0	1	0	2	0	0	0	0	0	15
8:00 AM	0	7	2	0	0	6	0	0	1	0	3	0	0	0	0	0	19
8:15 AM	0	6	4	0	1	3	0	0	1	0	2	0	0	0	0	0	17
8:30 AM	0	7	0	0	0	4	0	0	1	0	3	0	0	0	0	0	15
8:45 AM	0	6	4	0	1	5	0	0	1	0	4	0	0	0	0	0	21
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	46	20	0	3	28	0	0	6	0	22	0	0	0	0	0	125
	0.00%	69.70%	30.30%	0.00%	9.68%	90.32%	0.00%	0.00%	21.43%	0.00%	78.57%	0.00%	0	0	0	0	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	20	10	0	1	10	0	0	2	0	10	0	0	0	0	0	53
PEAK HR FACTOR :	0.000	0.625	0.500	0.000	0.250	0.417	0.000	0.000	0.500	0.000	0.833	0.000	0.000	0.000	0.000	0.000	0.883
	0.750				0.458				0.750								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2.5 NT	0.5 NR	0 NU	2 SL	2 ST	0 SR	0 SU	1.3 EL	0.3 ET	1.3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	4	2	0	0	2	0	0	0	0	4	0	0	0	0	0	12
4:15 PM	0	6	3	0	0	7	0	0	3	0	6	0	0	0	0	0	25
4:30 PM	0	4	2	0	0	4	0	0	0	0	6	0	0	0	0	0	16
4:45 PM	0	4	1	0	0	3	0	0	0	0	0	0	0	0	0	0	8
5:00 PM	0	4	3	0	0	3	0	0	1	0	5	0	0	0	0	0	16
5:15 PM	0	5	1	0	0	6	0	0	0	0	2	0	0	0	0	0	14
5:30 PM	0	3	3	0	0	1	0	0	0	0	6	0	0	0	0	0	13
5:45 PM	0	3	3	0	0	10	0	0	1	0	5	0	0	0	0	0	22
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	33	18	0	0	36	0	0	5	0	34	0	0	0	0	0	126
	0.00%	64.71%	35.29%	0.00%	0.00%	100.00%	0.00%	0.00%	12.82%	0.00%	87.18%	0.00%	0	0	0	0	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	15	10	0	0	20	0	0	2	0	18	0	0	0	0	0	65
PEAK HR FACTOR :	0.00	0.750	0.833	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.739
	0.893				0.500				0.833								

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & I-10 EB Ramps
City: Rialto
Control: Signalized

Project ID: Historical
Date: 4/12/2018

4axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				I-10 EB Ramps				I-10 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2.5	0.5	0	2	2	0	0	1.3	0.3	1.3	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	22	15	0	1	11	0	0	0	0	12	0	0	0	0	0	61
7:15 AM	0	24	11	0	1	10	0	0	0	0	9	0	0	0	0	0	55
7:30 AM	0	10	11	0	0	11	0	0	1	0	22	0	0	0	0	0	55
7:45 AM	0	23	14	0	0	14	0	0	1	0	13	0	0	0	0	0	65
8:00 AM	0	13	17	0	1	20	0	0	1	0	9	0	0	0	0	0	61
8:15 AM	0	24	21	0	2	33	0	0	3	0	17	0	0	0	0	0	100
8:30 AM	0	26	20	0	1	20	0	0	1	0	21	0	0	0	0	0	89
8:45 AM	0	24	18	0	0	14	0	0	2	0	23	0	0	0	0	0	81
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	166	127	0	6	133	0	0	9	0	126	0	0	0	0	0	567
	0.00%	56.66%	43.34%	0.00%	4.32%	95.68%	0.00%	0.00%	6.67%	0.00%	93.33%	0.00%	0	0	0	0	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	79	51	0	2	46	0	0	2	0	56	0	0	0	0	0	236
PEAK HR FACTOR :	0.000	0.823	0.850	0.000	0.500	0.821	0.000	0.000	0.500	0.000	0.636	0.000	0.000	0.000	0.000	0.000	0.908
	0.878				0.857				0.630								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2.5	0.5	0	2	2	0	0	1.3	0.3	1.3	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	10	12	0	2	18	0	0	2	0	8	0	0	0	0	0	52
4:15 PM	0	13	14	0	0	20	0	0	3	0	11	0	0	0	0	0	61
4:30 PM	0	8	19	0	1	23	0	0	4	0	10	0	0	0	0	0	65
4:45 PM	0	15	16	0	1	13	0	0	1	0	9	0	0	0	0	0	55
5:00 PM	0	10	16	0	1	15	0	0	1	0	14	0	0	0	0	0	57
5:15 PM	0	12	8	0	1	8	0	0	0	0	11	0	0	0	0	0	40
5:30 PM	0	6	8	0	1	22	0	0	1	0	10	0	0	0	0	0	48
5:45 PM	0	11	13	0	0	21	0	0	0	0	15	0	0	0	0	0	60
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	85	106	0	7	140	0	0	12	0	88	0	0	0	0	0	438
	0.00%	44.50%	55.50%	0.00%	4.76%	95.24%	0.00%	0.00%	12.00%	0.00%	88.00%	0.00%	0	0	0	0	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	39	45	0	3	66	0	0	2	0	50	0	0	0	0	0	205
PEAK HR FACTOR :	0.00	0.813	0.703	0.000	0.750	0.750	0.000	0.000	0.500	0.000	0.833	0.000	0.000	0.000	0.000	0.000	0.854
	0.808				0.750				0.867								

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & Slover Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

Total

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Slover Ave				Slover Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	17	129	3	0	9	215	110	0	74	6	10	0	4	12	5	0	594
7:15 AM	17	145	7	0	10	246	88	0	47	2	3	0	5	2	5	0	577
7:30 AM	12	177	1	0	4	240	87	0	54	5	14	0	6	4	5	0	609
7:45 AM	15	191	4	1	4	254	90	0	51	5	13	0	4	3	6	0	641
8:00 AM	7	150	1	1	11	258	86	2	54	5	10	0	4	2	4	0	595
8:15 AM	8	161	2	3	16	243	48	0	48	8	11	0	4	4	6	0	562
8:30 AM	9	180	6	0	8	224	52	0	53	9	7	0	6	5	4	0	563
8:45 AM	9	213	3	1	5	196	40	0	48	13	10	0	5	7	3	0	553
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	94	1346	27	6	67	1876	601	2	429	53	78	0	38	39	38	0	4694
	6.38%	91.38%	1.83%	0.41%	2.63%	73.68%	23.61%	0.08%	76.61%	9.46%	13.93%	0.00%	33.04%	33.91%	33.04%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	51	663	13	2	29	998	351	2	206	17	40	0	19	11	20	0	2422
PEAK HR FACTOR :	0.750	0.868	0.464	0.500	0.659	0.967	0.975	0.250	0.954	0.850	0.714	0.000	0.792	0.688	0.833	0.000	0.945
	0.864				0.966				0.901				0.833				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	6	273	2	1	5	219	66	0	109	46	28	0	10	2	25	0	792
4:15 PM	7	215	2	1	7	225	64	0	89	47	33	0	5	2	29	0	726
4:30 PM	2	290	4	0	8	239	79	0	84	32	36	0	4	4	25	0	807
4:45 PM	5	230	2	1	5	237	60	0	101	13	27	0	5	3	13	0	702
5:00 PM	2	302	1	3	3	313	44	0	86	38	31	0	2	7	9	0	841
5:15 PM	9	327	2	0	3	294	63	0	95	35	29	0	4	3	20	0	884
5:30 PM	7	261	6	3	2	301	58	0	106	11	25	0	4	1	10	0	795
5:45 PM	4	281	5	0	6	273	61	0	91	23	30	0	5	3	18	0	800
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	42	2179	24	9	39	2101	495	0	761	245	239	0	39	25	149	0	6347
	1.86%	96.67%	1.06%	0.40%	1.48%	79.73%	18.79%	0.00%	61.12%	19.68%	19.20%	0.00%	18.31%	11.74%	69.95%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	22	1171	14	6	14	1181	226	0	378	107	115	0	15	14	57	0	3320
PEAK HR FACTOR :	0.611	0.895	0.583	0.500	0.583	0.943	0.897	0.000	0.892	0.704	0.927	0.000	0.750	0.500	0.713	0.000	0.939
	0.897				0.984				0.943				0.796				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & Slover Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

Cars

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Slover Ave				Slover Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	11	97	2	0	7	181	105	0	69	5	6	0	3	10	4	0	500
7:15 AM	14	95	3	0	7	220	79	0	44	1	1	0	4	2	4	0	474
7:30 AM	10	141	0	0	3	209	79	0	45	5	8	0	4	3	2	0	509
7:45 AM	13	138	3	1	2	218	85	0	50	5	5	0	1	2	4	0	527
8:00 AM	4	113	0	1	6	222	78	2	45	4	6	0	2	1	0	0	484
8:15 AM	6	111	1	3	10	182	45	0	36	7	6	0	2	4	2	0	415
8:30 AM	7	114	3	0	5	178	44	0	39	7	6	0	4	1	1	0	409
8:45 AM	6	149	3	0	4	147	32	0	35	11	5	0	4	5	2	0	403
TOTAL VOLUMES :	NL 71	NT 958	NR 15	NU 5	SL 44	ST 1557	SR 547	SU 2	EL 363	ET 45	ER 43	EU 0	WL 24	WT 28	WR 19	WU 0	TOTAL 3721
APPROACH %'s :	6.77%	91.33%	1.43%	0.48%	2.05%	72.42%	25.44%	0.09%	80.49%	9.98%	9.53%	0.00%	33.80%	39.44%	26.76%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	41	487	6	2	18	869	321	2	184	15	20	0	11	8	10	0	1994
PEAK HR FACTOR :	0.73	0.863	0.500	0.500	0.643	0.979	0.944	0.250	0.920	0.750	0.625	0.000	0.688	0.667	0.625	0.000	0.946
	0.865				0.982				0.913				0.725				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	4	232	0	1	3	185	56	0	103	44	21	0	6	1	23	0	679
4:15 PM	7	186	1	1	2	178	57	0	83	46	25	0	2	2	26	0	616
4:30 PM	1	257	2	0	5	208	63	0	76	28	24	0	2	2	23	0	691
4:45 PM	4	198	1	1	2	215	52	0	97	11	20	0	2	1	10	0	614
5:00 PM	2	277	1	3	0	279	38	0	79	37	25	0	0	1	7	0	749
5:15 PM	6	301	2	0	3	264	59	0	90	33	24	0	1	1	19	0	803
5:30 PM	6	240	4	3	1	261	52	0	102	10	23	0	2	1	8	0	713
5:45 PM	3	248	3	0	1	231	45	0	90	22	25	0	1	1	16	0	686
TOTAL VOLUMES :	NL 33	NT 1939	NR 14	NU 9	SL 17	ST 1821	SR 422	SU 0	EL 720	ET 231	ER 187	EU 0	WL 16	WT 10	WR 132	WU 0	TOTAL 5551
APPROACH %'s :	1.65%	97.19%	0.70%	0.45%	0.75%	80.58%	18.67%	0.00%	63.27%	20.30%	16.43%	0.00%	10.13%	6.33%	83.54%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	17	1066	10	6	5	1035	194	0	361	102	97	0	4	4	50	0	2951
PEAK HR FACTOR :	0.71	0.885	0.625	0.500	0.417	0.927	0.822	0.000	0.885	0.689	0.970	0.000	0.500	1.000	0.658	0.000	0.919
	0.889				0.946				0.952				0.690				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & Slover Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

2axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Slover Ave				Slover Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	1	9	0	0	1	5	3	0	2	1	0	0	1	1	0	0	24
7:15 AM	2	10	0	0	1	9	3	0	1	1	1	0	0	0	0	0	28
7:30 AM	0	5	0	0	0	3	4	0	5	0	0	0	1	0	1	0	19
7:45 AM	0	12	1	0	1	10	1	0	0	0	2	0	1	0	1	0	29
8:00 AM	1	6	0	0	1	9	0	0	1	1	0	0	0	0	1	0	20
8:15 AM	1	7	0	0	1	9	2	0	6	1	4	0	0	0	2	0	33
8:30 AM	1	9	0	0	1	8	1	0	7	0	0	0	0	3	1	0	31
8:45 AM	1	24	0	1	1	12	0	0	9	2	1	0	0	2	0	0	53
TOTAL VOLUMES :	NL 7	NT 82	NR 1	NU 1	SL 7	ST 65	SR 14	SU 0	EL 31	ET 6	ER 8	EU 0	WL 3	WT 6	WR 6	WU 0	TOTAL 237
APPROACH %'s :	7.69%	90.11%	1.10%	1.10%	8.14%	75.58%	16.28%	0.00%	68.89%	13.33%	17.78%	0.00%	20.00%	40.00%	40.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	3	33	1	0	3	31	8	0	7	2	3	0	2	0	3	0	96
PEAK HR FACTOR :	0.375	0.688	0.250	0.000	0.750	0.775	0.500	0.000	0.350	0.500	0.375	0.000	0.500	0.000	0.750	0.000	0.828
	0.712				0.808				0.600				0.625				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	0	6	1	0	1	11	4	0	3	0	0	0	0	0	1	0	27
4:15 PM	0	3	0	0	0	13	1	0	1	1	0	0	0	0	2	0	21
4:30 PM	0	8	0	0	0	3	3	0	2	4	4	0	0	0	0	0	24
4:45 PM	0	4	0	0	1	6	0	0	0	0	0	0	0	0	0	0	11
5:00 PM	0	2	0	0	1	6	1	0	3	1	1	0	0	2	0	0	17
5:15 PM	2	4	0	0	0	3	1	0	1	1	0	0	0	0	0	0	12
5:30 PM	0	4	0	0	0	9	1	0	1	0	1	0	0	0	0	0	16
5:45 PM	0	5	0	0	2	5	3	0	1	0	0	0	1	0	1	0	18
TOTAL VOLUMES :	NL 2	NT 36	NR 1	NU 0	SL 5	ST 56	SR 14	SU 0	EL 12	ET 7	ER 6	EU 0	WL 1	WT 2	WR 4	WU 0	TOTAL 146
APPROACH %'s :	5.13%	92.31%	2.56%	0.00%	6.67%	74.67%	18.67%	0.00%	48.00%	28.00%	24.00%	0.00%	14.29%	28.57%	57.14%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	2	15	0	0	3	23	6	0	6	2	2	0	1	2	1	0	63
PEAK HR FACTOR :	0.25	0.750	0.000	0.000	0.375	0.639	0.500	0.000	0.500	0.500	0.500	0.000	0.250	0.250	0.250	0.000	0.875
	0.708				0.800				0.500				0.500				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & Slover Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

3axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Slover Ave				Slover Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	1	5	0	0	1	8	1	0	0	0	1	0	0	0	1	0	18
7:15 AM	1	7	0	0	0	3	0	0	2	0	0	0	0	0	0	0	13
7:30 AM	1	4	1	0	1	1	0	0	2	0	4	0	0	0	1	0	15
7:45 AM	0	6	0	0	1	4	0	0	0	0	3	0	1	1	1	0	17
8:00 AM	0	7	0	0	1	6	1	0	4	0	1	0	1	0	1	0	22
8:15 AM	0	8	0	0	0	5	0	0	1	0	1	0	0	0	1	0	16
8:30 AM	0	8	1	0	0	4	1	0	0	0	1	0	0	1	1	0	17
8:45 AM	0	8	0	0	0	6	3	0	1	0	0	0	0	0	0	0	18
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	3	53	2	0	4	37	6	0	10	0	11	0	2	2	6	0	136
	5.17%	91.38%	3.45%	0.00%	8.51%	78.72%	12.77%	0.00%	47.62%	0.00%	52.38%	0.00%	20.00%	20.00%	60.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	2	24	1	0	3	14	1	0	8	0	8	0	2	1	3	0	67
PEAK HR FACTOR :	0.500	0.857	0.250	0.000	0.750	0.583	0.250	0.000	0.500	0.000	0.500	0.000	0.500	0.250	0.750	0.000	0.761
	0.844				0.563				0.667				0.500				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	1	8	0	0	1	2	2	0	1	2	2	0	1	0	1	0	21
4:15 PM	0	6	0	0	0	11	2	0	3	0	4	0	0	0	0	0	26
4:30 PM	1	8	1	0	3	5	3	0	0	0	3	0	0	1	2	0	27
4:45 PM	1	5	0	0	0	2	0	0	1	0	4	0	2	1	1	0	17
5:00 PM	0	3	0	0	0	6	1	0	2	0	1	0	1	0	0	0	14
5:15 PM	1	7	0	0	0	9	0	0	2	0	3	0	0	1	0	0	23
5:30 PM	0	4	1	0	0	6	0	0	1	0	0	0	1	0	0	0	13
5:45 PM	0	5	0	0	2	10	5	0	0	0	1	0	2	1	0	0	26
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	4	46	2	0	6	51	13	0	10	2	18	0	7	4	4	0	167
	7.69%	88.46%	3.85%	0.00%	8.57%	72.86%	18.57%	0.00%	33.33%	6.67%	60.00%	0.00%	46.67%	26.67%	26.67%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	1	19	1	0	2	31	6	0	5	0	5	0	4	2	0	0	76
PEAK HR FACTOR :	0.25	0.679	0.250	0.000	0.250	0.775	0.300	0.000	0.625	0.000	0.417	0.000	0.500	0.500	0.000	0.000	0.731
	0.656				0.574				0.500				0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & Slover Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

4axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Slover Ave				Slover Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	4	18	1	0	0	21	1	0	3	0	3	0	0	1	0	0	52
7:15 AM	0	33	4	0	2	14	6	0	0	0	1	0	1	0	1	0	62
7:30 AM	1	27	0	0	0	27	4	0	2	0	2	0	1	1	1	0	66
7:45 AM	2	35	0	0	0	22	4	0	1	0	3	0	1	0	0	0	68
8:00 AM	2	24	1	0	3	21	7	0	4	0	3	0	1	1	2	0	69
8:15 AM	1	35	1	0	5	47	1	0	5	0	0	0	2	0	1	0	98
8:30 AM	1	49	2	0	2	34	6	0	7	2	0	0	2	0	1	0	106
8:45 AM	2	32	0	0	0	31	5	0	3	0	4	0	1	0	1	0	79
TOTAL VOLUMES :	NL 13	NT 253	NR 9	NU 0	SL 12	ST 217	SR 34	SU 0	EL 25	ET 2	ER 16	EU 0	WL 9	WT 3	WR 7	WU 0	TOTAL 600
APPROACH %'s :	4.73%	92.00%	3.27%	0.00%	4.56%	82.51%	12.93%	0.00%	58.14%	4.65%	37.21%	0.00%	47.37%	15.79%	36.84%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	5	119	5	0	5	84	21	0	7	0	9	0	4	2	4	0	265
PEAK HR FACTOR :	0.625	0.850	0.313	0.000	0.417	0.778	0.750	0.000	0.438	0.000	0.750	0.000	1.000	0.500	0.500	0.000	0.960
	0.872				0.887				0.571				0.625				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	1	27	1	0	0	21	4	0	2	0	5	0	3	1	0	0	65
4:15 PM	0	20	1	0	5	23	4	0	2	0	4	0	3	0	1	0	63
4:30 PM	0	17	1	0	0	23	10	0	6	0	5	0	2	1	0	0	65
4:45 PM	0	23	1	0	2	14	8	0	3	2	3	0	1	1	2	0	60
5:00 PM	0	20	0	0	2	22	4	0	2	0	4	0	1	4	2	0	61
5:15 PM	0	15	0	0	0	18	3	0	2	1	2	0	3	1	1	0	46
5:30 PM	1	13	1	0	1	25	5	0	2	1	1	0	1	0	2	0	53
5:45 PM	1	23	2	0	1	27	8	0	0	1	4	0	1	1	1	0	70
TOTAL VOLUMES :	NL 3	NT 158	NR 7	NU 0	SL 11	ST 173	SR 46	SU 0	EL 19	ET 5	ER 28	EU 0	WL 15	WT 9	WR 9	WU 0	TOTAL 483
APPROACH %'s :	1.79%	94.05%	4.17%	0.00%	4.78%	75.22%	20.00%	0.00%	36.54%	9.62%	53.85%	0.00%	45.45%	27.27%	27.27%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	2	71	3	0	4	92	20	0	6	3	11	0	6	6	6	0	230
PEAK HR FACTOR :	0.50	0.772	0.375	0.000	0.500	0.852	0.625	0.000	0.750	0.750	0.688	0.000	0.500	0.375	0.750	0.000	0.821
	0.731				0.806				0.833				0.643				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & Santa Ana Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

Total

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Santa Ana Ave				Santa Ana Ave					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	3 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU		
7:00 AM	24	160	3	0	13	196	23	0	7	7	14	0	4	3	10	0	464	
7:15 AM	15	146	4	1	8	217	31	0	10	8	11	0	4	5	7	0	467	
7:30 AM	14	185	1	0	4	222	23	0	14	7	9	0	2	3	7	0	491	
7:45 AM	21	178	7	0	11	234	25	0	17	4	13	0	5	6	9	0	530	
8:00 AM	13	154	6	0	2	231	26	0	13	2	16	0	2	2	7	0	474	
8:15 AM	8	149	11	0	17	225	21	0	19	1	10	0	7	1	4	0	473	
8:30 AM	12	162	7	0	19	193	18	1	15	1	9	0	8	4	12	0	461	
8:45 AM	9	202	8	0	23	182	15	0	25	5	13	0	9	1	8	0	500	
TOTAL VOLUMES :	NL 116	NT 1336	NR 47	NU 1	SL 97	ST 1700	SR 182	SU 1	EL 120	ET 35	ER 95	EU 0	WL 41	WT 25	WR 64	WU 0	TOTAL 3860	
APPROACH %'s :	7.73%	89.07%	3.13%	0.07%	4.90%	85.86%	9.19%	0.05%	48.00%	14.00%	38.00%	0.00%	31.54%	19.23%	49.23%	0.00%		
PEAK HR :	07:30 AM - 08:30 AM																	TOTAL
PEAK HR VOL :	56	666	25	0	34	912	95	0	63	14	48	0	16	12	27	0	1968	
PEAK HR FACTOR :	0.667	0.900	0.568	0.000	0.500	0.974	0.913	0.000	0.829	0.500	0.750	0.000	0.571	0.500	0.750	0.000	0.928	
	0.907				0.964				0.919				0.688					

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	3 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU		
4:00 PM	16	244	6	0	9	234	18	0	19	6	26	0	10	6	11	0	605	
4:15 PM	19	220	5	0	12	248	10	0	16	3	19	0	5	2	17	0	576	
4:30 PM	21	202	6	0	7	261	13	0	18	1	18	0	12	1	15	0	575	
4:45 PM	9	224	9	0	7	238	19	1	11	1	12	0	5	2	9	0	547	
5:00 PM	22	274	4	0	5	296	19	0	24	5	21	0	7	3	23	0	703	
5:15 PM	15	271	1	0	9	340	15	0	24	2	25	0	9	2	12	0	725	
5:30 PM	18	269	3	0	7	309	15	0	23	2	15	0	7	5	10	0	683	
5:45 PM	15	235	1	0	9	277	19	0	16	1	12	0	3	4	7	0	599	
TOTAL VOLUMES :	NL 135	NT 1939	NR 35	NU 0	SL 65	ST 2203	SR 128	SU 1	EL 151	ET 21	ER 148	EU 0	WL 58	WT 25	WR 104	WU 0	TOTAL 5013	
APPROACH %'s :	6.40%	91.94%	1.66%	0.00%	2.71%	91.91%	5.34%	0.04%	47.19%	6.56%	46.25%	0.00%	31.02%	13.37%	55.61%	0.00%		
PEAK HR :	05:00 PM - 06:00 PM																	TOTAL
PEAK HR VOL :	70	1049	9	0	30	1222	68	0	87	10	73	0	26	14	52	0	2710	
PEAK HR FACTOR :	0.795	0.957	0.563	0.000	0.833	0.899	0.895	0.000	0.906	0.500	0.730	0.000	0.722	0.700	0.565	0.000	0.934	
	0.940				0.907				0.833				0.697					

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & Santa Ana Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

Cars

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Santa Ana Ave				Santa Ana Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	3 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	23	125	1	0	8	166	19	0	4	1	13	0	0	0	2	0	362
7:15 AM	14	109	2	1	7	189	29	0	8	2	9	0	1	2	0	0	373
7:30 AM	10	152	0	0	0	193	22	0	13	0	8	0	1	0	1	0	400
7:45 AM	18	137	3	0	7	201	18	0	12	0	11	0	1	0	1	0	409
8:00 AM	10	117	4	0	0	200	24	0	9	2	11	0	0	0	1	0	378
8:15 AM	6	111	2	0	5	172	17	0	14	1	9	0	2	0	2	0	341
8:30 AM	10	111	2	0	6	160	15	1	11	1	7	0	0	4	4	0	332
8:45 AM	8	159	3	0	11	139	14	0	9	3	10	0	2	1	1	0	360
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	99	1021	17	1	44	1420	158	1	80	10	78	0	7	7	12	0	2955
	8.70%	89.72%	1.49%	0.09%	2.71%	87.49%	9.74%	0.06%	47.62%	5.95%	46.43%	0.00%	26.92%	26.92%	46.15%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	44	517	9	0	12	766	81	0	48	3	39	0	4	0	5	0	1528
PEAK HR FACTOR :	0.61	0.850	0.563	0.000	0.429	0.953	0.844	0.000	0.857	0.375	0.886	0.000	0.500	0.000	0.625	0.000	0.934
	0.880				0.950				0.938				0.563				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	3 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
4:00 PM	15	214	5	0	4	199	15	0	16	6	19	0	7	4	7	0	511
4:15 PM	17	195	3	0	8	203	10	0	16	3	17	0	5	2	16	0	495
4:30 PM	19	182	5	0	5	220	10	0	15	1	17	0	9	1	13	0	497
4:45 PM	6	198	4	0	5	207	18	1	6	0	11	0	3	1	7	0	467
5:00 PM	20	254	3	0	2	265	16	0	21	4	18	0	6	3	21	0	633
5:15 PM	15	246	1	0	5	306	14	0	22	1	22	0	8	1	10	0	651
5:30 PM	15	247	0	0	4	273	13	0	21	1	12	0	3	3	8	0	600
5:45 PM	13	205	0	0	3	232	18	0	14	1	11	0	1	4	7	0	509
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	120	1741	21	0	36	1905	114	1	131	17	127	0	42	19	89	0	4363
	6.38%	92.51%	1.12%	0.00%	1.75%	92.66%	5.54%	0.05%	47.64%	6.18%	46.18%	0.00%	28.00%	12.67%	59.33%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	63	952	4	0	14	1076	61	0	78	7	63	0	18	11	46	0	2393
PEAK HR FACTOR :	0.79	0.937	0.333	0.000	0.700	0.879	0.847	0.000	0.886	0.438	0.716	0.000	0.563	0.688	0.548	0.000	0.919
	0.920				0.885				0.822				0.625				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & Santa Ana Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

2axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Santa Ana Ave				Santa Ana Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	3 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	10	0	0	0	8	1	0	1	0	0	0	0	0	1	0	21
7:15 AM	0	7	0	0	0	12	0	0	0	1	0	0	0	0	1	0	21
7:30 AM	4	8	0	0	1	5	0	0	0	1	0	0	0	0	0	0	19
7:45 AM	2	6	0	0	1	7	3	0	3	0	0	0	0	0	2	0	24
8:00 AM	1	5	0	0	0	7	1	0	1	0	2	0	0	0	0	0	17
8:15 AM	1	5	0	0	0	13	2	0	2	0	0	0	0	0	1	0	24
8:30 AM	1	7	0	0	0	7	0	0	4	0	0	0	0	0	0	0	19
8:45 AM	0	13	1	0	1	13	0	0	13	0	0	0	0	0	1	0	42
TOTAL VOLUMES :	NL 9	NT 61	NR 1	NU 0	SL 3	ST 72	SR 7	SU 0	EL 24	ET 2	ER 2	EU 0	WL 0	WT 0	WR 6	WU 0	TOTAL 187
APPROACH %'s :	12.68%	85.92%	1.41%	0.00%	3.66%	87.80%	8.54%	0.00%	85.71%	7.14%	7.14%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	8	24	0	0	2	32	6	0	6	1	2	0	0	0	3	0	84
PEAK HR FACTOR :	0.500	0.750	0.000	0.000	0.500	0.615	0.500	0.000	0.500	0.250	0.250	0.000	0.000	0.000	0.375	0.000	0.875
	0.667				0.667				0.750				0.375				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	3 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
4:00 PM	1	2	0	0	0	7	2	0	1	0	1	0	1	0	2	0	17
4:15 PM	0	2	0	0	0	11	0	0	0	0	0	0	0	0	0	0	13
4:30 PM	1	4	0	0	0	3	2	0	0	0	1	0	1	0	0	0	12
4:45 PM	0	4	0	0	1	6	1	0	0	0	0	0	0	0	0	0	12
5:00 PM	1	2	0	0	2	2	1	0	0	0	0	0	0	0	0	0	8
5:15 PM	0	3	0	0	1	6	1	0	0	0	0	0	0	0	1	0	12
5:30 PM	0	4	0	0	0	6	2	0	0	0	0	0	0	1	0	0	13
5:45 PM	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0	0	12
TOTAL VOLUMES :	NL 3	NT 26	NR 0	NU 0	SL 4	ST 48	SR 9	SU 0	EL 1	ET 0	ER 2	EU 0	WL 2	WT 1	WR 3	WU 0	TOTAL 99
APPROACH %'s :	10.34%	89.66%	0.00%	0.00%	6.56%	78.69%	14.75%	0.00%	33.33%	0.00%	66.67%	0.00%	33.33%	16.67%	50.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	1	14	0	0	3	21	4	0	0	0	0	0	0	1	1	0	45
PEAK HR FACTOR :	0.25	0.700	0.000	0.000	0.375	0.750	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.865
	0.750				0.875								0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & Santa Ana Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

3axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Santa Ana Ave				Santa Ana Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	3	0	0	0	3	0	0	0	1	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	1	2	1	0	1	3	1	0	0	5	0	0	2	0	2	0	18
7:15 AM	0	6	0	0	0	3	1	0	1	5	0	0	1	1	2	0	20
7:30 AM	0	7	0	0	0	2	0	0	0	4	0	0	1	0	0	0	14
7:45 AM	1	5	1	0	0	7	0	0	1	4	1	0	2	0	0	0	22
8:00 AM	0	8	1	0	1	5	0	0	1	0	2	0	0	0	1	0	19
8:15 AM	1	5	1	0	2	13	1	0	0	0	0	0	1	0	0	0	24
8:30 AM	0	6	1	0	2	5	1	0	0	0	1	0	1	0	1	0	18
8:45 AM	0	7	1	0	0	7	0	0	0	1	0	0	1	0	1	0	18
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	3	46	6	0	6	45	4	0	3	19	4	0	9	1	7	0	153
	5.45%	83.64%	10.91%	0.00%	10.91%	81.82%	7.27%	0.00%	11.54%	73.08%	15.38%	0.00%	52.94%	5.88%	41.18%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	2	25	3	0	3	27	1	0	2	8	3	0	4	0	1	0	79
PEAK HR FACTOR :	0.500	0.781	0.750	0.000	0.375	0.519	0.250	0.000	0.500	0.500	0.375	0.000	0.500	0.000	0.250	0.000	0.823
	0.833				0.484				0.542				0.625				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	3	0	0	0	3	0	0	0	1	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	5	0	0	1	6	0	0	0	0	1	0	1	1	1	0	16
4:15 PM	1	5	0	0	3	12	0	0	0	0	1	0	0	0	0	0	22
4:30 PM	0	4	0	0	1	6	0	0	0	0	0	0	1	0	0	0	12
4:45 PM	3	6	2	0	0	5	0	0	2	1	1	0	1	1	0	0	22
5:00 PM	0	5	1	0	1	10	0	0	0	1	1	0	1	0	0	0	20
5:15 PM	0	7	0	0	1	9	0	0	0	0	2	0	0	0	1	0	20
5:30 PM	1	4	0	0	2	6	0	0	0	1	0	0	3	1	0	0	18
5:45 PM	0	4	0	0	1	10	1	0	2	0	0	0	1	0	0	0	19
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	5	40	3	0	10	64	1	0	4	3	6	0	8	3	2	0	149
	10.42%	83.33%	6.25%	0.00%	13.33%	85.33%	1.33%	0.00%	30.77%	23.08%	46.15%	0.00%	61.54%	23.08%	15.38%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	1	20	1	0	5	35	1	0	2	2	3	0	5	1	1	0	77
PEAK HR FACTOR :	0.25	0.714	0.250	0.000	0.625	0.875	0.250	0.000	0.250	0.500	0.375	0.000	0.417	0.250	0.250	0.000	0.963
	0.786				0.854				0.875				0.438				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & Santa Ana Ave
City: Bloomington
Control: Signalized

Project ID: Historical
Date: 4/12/2018

4axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Santa Ana Ave				Santa Ana Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	3 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	23	1	0	4	19	2	0	2	1	1	0	2	3	5	0	63
7:15 AM	1	24	2	0	1	13	1	0	1	0	2	0	2	2	4	0	53
7:30 AM	0	18	1	0	3	22	1	0	1	2	1	0	0	3	6	0	58
7:45 AM	0	30	3	0	3	19	4	0	1	0	1	0	2	6	6	0	75
8:00 AM	2	24	1	0	1	19	1	0	2	0	1	0	2	2	5	0	60
8:15 AM	0	28	8	0	10	27	1	0	3	0	1	0	4	1	1	0	84
8:30 AM	1	38	4	0	11	21	2	0	0	0	1	0	7	0	7	0	92
8:45 AM	1	23	3	0	11	23	1	0	3	1	3	0	6	0	5	0	80
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	5	208	23	0	44	163	13	0	13	4	11	0	25	17	39	0	565
	2.12%	88.14%	9.75%	0.00%	20.00%	74.09%	5.91%	0.00%	46.43%	14.29%	39.29%	0.00%	30.86%	20.99%	48.15%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	2	100	13	0	17	87	7	0	7	2	4	0	8	12	18	0	277
PEAK HR FACTOR :	0.250	0.833	0.406	0.000	0.425	0.806	0.438	0.000	0.583	0.250	1.000	0.000	0.500	0.500	0.750	0.000	0.824
	0.799				0.730				0.813				0.679				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	3 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
4:00 PM	0	23	1	0	4	22	1	0	2	0	5	0	1	1	1	0	61
4:15 PM	1	18	2	0	1	22	0	0	0	0	1	0	0	0	1	0	46
4:30 PM	1	12	1	0	1	32	1	0	3	0	0	0	1	0	2	0	54
4:45 PM	0	16	3	0	1	20	0	0	3	0	0	0	1	0	2	0	46
5:00 PM	1	13	0	0	0	19	2	0	3	0	2	0	0	0	2	0	42
5:15 PM	0	15	0	0	2	19	0	0	2	1	1	0	1	1	0	0	42
5:30 PM	2	14	3	0	1	24	0	0	2	0	3	0	1	0	2	0	52
5:45 PM	2	21	1	0	5	28	0	0	0	0	1	0	1	0	0	0	59
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	7	132	11	0	15	186	4	0	15	1	13	0	6	2	10	0	402
	4.67%	88.00%	7.33%	0.00%	7.32%	90.73%	1.95%	0.00%	51.72%	3.45%	44.83%	0.00%	33.33%	11.11%	55.56%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	5	63	4	0	8	90	2	0	7	1	7	0	3	1	4	0	195
PEAK HR FACTOR :	0.63	0.750	0.333	0.000	0.400	0.804	0.250	0.000	0.583	0.250	0.583	0.000	0.750	0.250	0.500	0.000	0.826
	0.750				0.758				0.750				0.667				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & Industrial Dr
City: Bloomington
Control: 1-Way Stop (WB)

Project ID: Historical
Date: 4/12/2018

Total

NS/EW Streets:		S Riverside Ave				S Riverside Ave				Industrial Dr				Industrial Dr				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
	7:00 AM	0	174	0	0	8	189	0	0	0	0	0	0	0	0	8	0	379
	7:15 AM	0	160	2	0	5	226	0	0	0	0	0	0	0	0	2	0	395
	7:30 AM	0	201	2	0	6	233	0	0	0	0	0	0	0	0	3	0	445
	7:45 AM	0	194	1	0	6	232	0	0	0	0	0	0	0	0	4	0	437
	8:00 AM	0	177	0	0	9	217	0	0	0	0	0	0	0	0	7	0	410
	8:15 AM	0	143	0	0	13	236	0	0	0	0	0	0	1	0	11	0	404
	8:30 AM	0	173	0	0	10	187	0	0	0	0	0	0	1	0	7	0	378
	8:45 AM	0	217	2	0	6	181	0	0	0	0	0	0	1	0	6	0	413
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		0	1439	7	0	63	1701	0	0	0	0	0	0	3	0	48	0	3261
PEAK HR :		07:30 AM - 08:30 AM				3.57%	96.43%	0.00%	0.00%	5.88%	0.00%	94.12%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR VOL :		0	715	3	0	34	918	0	0	0	0	0	0	1	0	25	0	1696
PEAK HR FACTOR :		0.000	0.889	0.375	0.000	0.654	0.972	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.568	0.000	0.953
		0.884				0.956								0.542				

PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
	4:00 PM	0	250	1	0	8	254	0	0	0	0	0	0	1	0	6	0	520
	4:15 PM	0	231	2	0	7	274	0	0	0	0	0	0	0	0	11	0	525
	4:30 PM	0	204	2	0	5	268	0	0	0	0	0	0	0	0	18	0	497
	4:45 PM	0	239	0	0	3	278	0	0	0	0	0	0	2	0	6	0	528
	5:00 PM	0	266	0	0	3	309	0	1	0	0	0	0	1	0	10	0	590
	5:15 PM	0	271	2	0	5	379	0	0	0	0	0	0	2	0	2	0	661
	5:30 PM	0	273	2	0	7	335	0	0	0	0	0	0	0	0	3	0	620
	5:45 PM	0	237	3	0	3	305	0	0	0	0	0	0	0	0	7	0	555
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		0	1971	12	0	41	2402	0	1	0	0	0	0	6	0	63	0	4496
PEAK HR :		0.00%	99.39%	0.61%	0.00%	1.68%	98.28%	0.00%	0.04%	8.70%	0.00%	91.30%	0.00%	8.70%	0.00%	91.30%	0.00%	
PEAK HR VOL :		05:00 PM - 06:00 PM				18	1328	0	1	0	0	0	0	3	0	22	0	2426
PEAK HR FACTOR :		0.000	0.959	0.583	0.000	0.643	0.876	0.000	0.250	0.000	0.000	0.000	0.000	0.375	0.000	0.550	0.000	0.918
		0.958				0.877								0.568				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & Industrial Dr
City: Bloomington
Control: 1-Way Stop (WB)

Project ID: Historical
Date: 4/12/2018

Cars

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Industrial Dr				Industrial Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	139	0	0	5	155	0	0	0	0	0	0	0	0	4	0	303
7:15 AM	0	125	1	0	4	196	0	0	0	0	0	0	0	0	0	0	326
7:30 AM	0	169	2	0	4	202	0	0	0	0	0	0	0	0	1	0	378
7:45 AM	0	149	1	0	3	200	0	0	0	0	0	0	0	0	2	0	355
8:00 AM	0	137	0	0	5	186	0	0	0	0	0	0	0	0	4	0	332
8:15 AM	0	99	0	0	8	185	0	0	0	0	0	0	1	0	5	0	298
8:30 AM	0	117	0	0	4	146	0	0	0	0	0	0	0	0	4	0	271
8:45 AM	0	172	1	0	3	135	0	0	0	0	0	0	0	0	0	0	311
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1107	5	0	36	1405	0	0	0	0	0	0	1	0	20	0	2574
	0.00%	99.55%	0.45%	0.00%	2.50%	97.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.76%	0.00%	95.24%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	554	3	0	20	773	0	0	0	0	0	0	1	0	12	0	1363
PEAK HR FACTOR :	0.00	0.820	0.375	0.000	0.625	0.957	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.600	0.000	0.901
	0.814				0.962								0.542				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	227	0	0	4	216	0	0	0	0	0	0	1	0	3	0	451
4:15 PM	0	200	2	0	1	224	0	0	0	0	0	0	0	0	8	0	435
4:30 PM	0	184	2	0	2	235	0	0	0	0	0	0	0	0	16	0	439
4:45 PM	0	210	0	0	0	244	0	0	0	0	0	0	2	0	3	0	459
5:00 PM	0	246	0	0	2	275	0	1	0	0	0	0	1	0	10	0	535
5:15 PM	0	248	2	0	3	340	0	0	0	0	0	0	2	0	0	0	595
5:30 PM	0	248	2	0	2	298	0	0	0	0	0	0	0	0	2	0	552
5:45 PM	0	207	2	0	2	261	0	0	0	0	0	0	0	0	2	0	474
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1770	10	0	16	2093	0	1	0	0	0	0	6	0	44	0	3940
	0.00%	99.44%	0.56%	0.00%	0.76%	99.19%	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	12.00%	0.00%	88.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	949	6	0	9	1174	0	1	0	0	0	0	3	0	14	0	2156
PEAK HR FACTOR :	0.00	0.957	0.750	0.000	0.750	0.863	0.000	0.250	0.000	0.000	0.000	0.000	0.375	0.000	0.350	0.000	0.906
	0.955				0.863								0.386				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & Industrial Dr
City: Bloomington
Control: 1-Way Stop (WB)

Project ID: Historical
Date: 4/12/2018

2axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Industrial Dr				Industrial Dr			
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU
7:00 AM	0	8	0	0	0	7	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	7	0	0	0	9	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	9	0	0	0	6	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	8	0	0	0	7	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	7	0	0	0	9	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	11	1	0	1	10	0	0	0	0	0	0	0	0	1	0
TOTAL VOLUMES :	0	63	1	0	1	61	0	0	0	0	0	0	0	0	1	0
APPROACH %'s :	0.00%	98.44%	1.56%	0.00%	1.61%	98.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
PEAK HR :	07:30 AM - 08:30 AM															
PEAK HR VOL :	0	30	0	0	0	28	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.833	0.000	0.000	0.000	0.778	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.833				0.778											
TOTAL																
0.906																

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU
4:00 PM	0	3	0	0	1	8	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	5	0	0	0	13	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	6	0	0	1	4	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	4	0	0	0	7	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	34	0	0	2	53	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	3.64%	96.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PEAK HR :	05:00 PM - 06:00 PM															
PEAK HR VOL :	0	17	0	0	0	21	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.850	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.850				0.750											
TOTAL																
0.864																

National Data & Surveying Services Intersection Turning Movement Count

Location: S Riverside Ave & Industrial Dr
City: Bloomington
Control: 1-Way Stop (WB)

Project ID: Historical
Date: 4/12/2018

3axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Industrial Dr				Industrial Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	2	0	10
7:15 AM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	12
7:30 AM	0	8	0	0	1	4	0	0	0	0	0	0	0	0	1	0	14
7:45 AM	0	6	0	0	0	8	0	0	0	0	0	0	0	0	0	0	14
8:00 AM	0	9	0	0	3	5	0	0	0	0	0	0	0	0	1	0	18
8:15 AM	0	4	0	0	0	13	0	0	0	0	0	0	0	0	2	0	19
8:30 AM	0	7	0	0	1	6	0	0	0	0	0	0	0	0	0	0	14
8:45 AM	0	8	0	0	0	6	0	0	0	0	0	0	0	0	1	0	15
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	52	0	0	5	52	0	0	0	0	0	0	0	0	7	0	116
	0.00%	100.00%	0.00%	0.00%	8.77%	91.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	27	0	0	4	30	0	0	0	0	0	0	0	0	4	0	65
PEAK HR FACTOR :	0.000	0.750	0.000	0.000	0.333	0.577	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.855
	0.750				0.654								0.500				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	3	0	0	0	7	0	0	0	0	0	0	0	0	1	0	11
4:15 PM	0	7	0	0	1	13	0	0	0	0	0	0	0	0	1	0	22
4:30 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8
4:45 PM	0	7	0	0	2	6	0	0	0	0	0	0	0	0	2	0	17
5:00 PM	0	5	0	0	0	11	0	0	0	0	0	0	0	0	0	0	16
5:15 PM	0	6	0	0	0	11	0	0	0	0	0	0	0	0	1	0	18
5:30 PM	0	4	0	0	1	9	0	0	0	0	0	0	0	0	1	0	15
5:45 PM	0	4	0	0	1	8	0	0	0	0	0	0	0	0	2	0	15
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	39	0	0	5	70	0	0	0	0	0	0	0	0	8	0	122
	0.00%	100.00%	0.00%	0.00%	6.67%	93.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	19	0	0	2	39	0	0	0	0	0	0	0	0	4	0	64
PEAK HR FACTOR :	0.00	0.792	0.000	0.000	0.500	0.886	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.889
	0.792				0.932								0.500				

National Data & Surveying Services Intersection Turning Movement Count

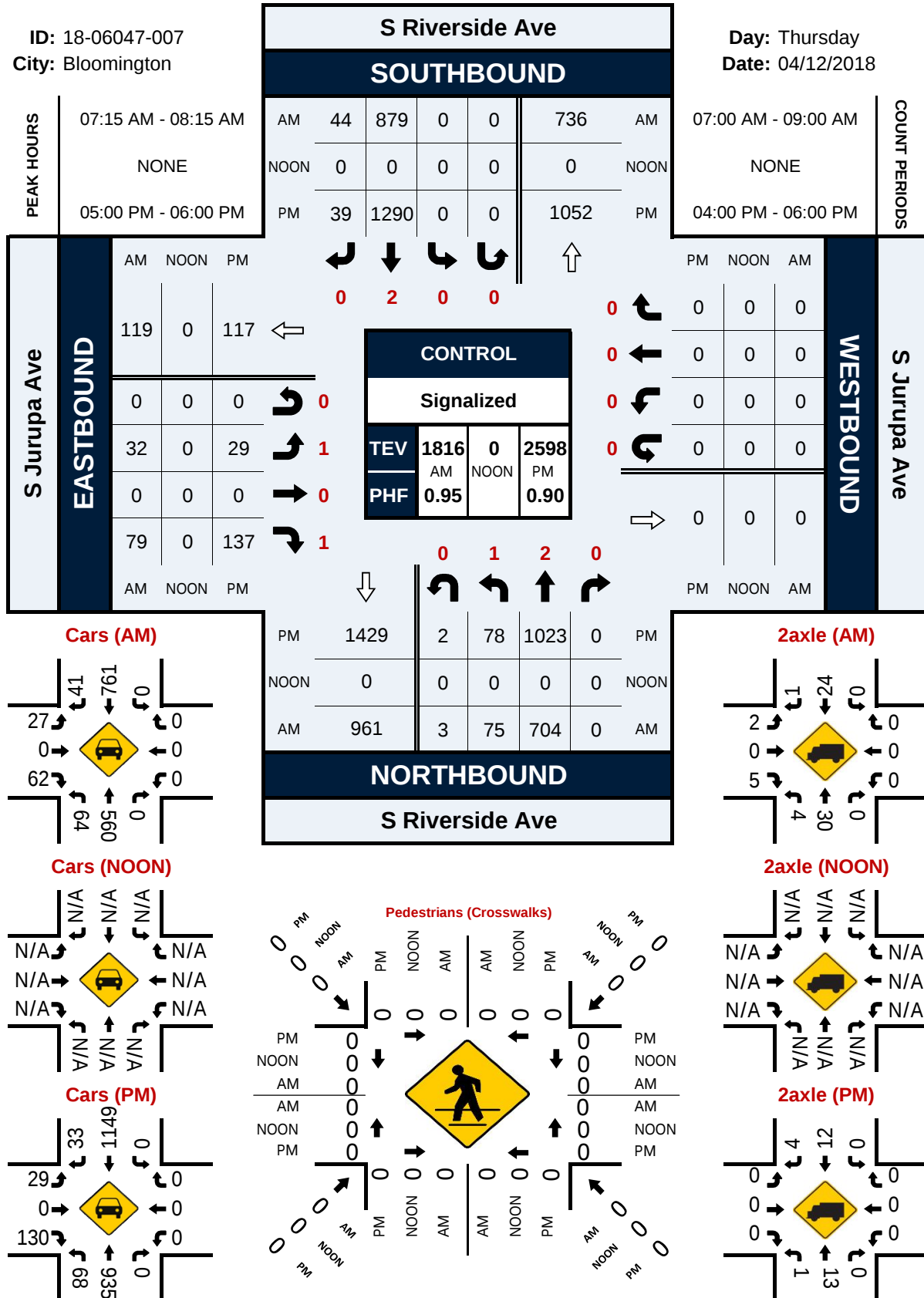
Location: S Riverside Ave & Industrial Dr
City: Bloomington
Control: 1-Way Stop (WB)

Project ID: Historical
Date: 4/12/2018

4axle

NS/EW Streets:	S Riverside Ave				S Riverside Ave				Industrial Dr				Industrial Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	23	0	0	3	23	0	0	0	0	0	0	0	0	2	0	51
7:15 AM	0	22	1	0	1	15	0	0	0	0	0	0	0	0	2	0	41
7:30 AM	0	15	0	0	1	21	0	0	0	0	0	0	0	0	1	0	38
7:45 AM	0	31	0	0	3	17	0	0	0	0	0	0	0	0	2	0	53
8:00 AM	0	25	0	0	1	20	0	0	0	0	0	0	0	0	2	0	48
8:15 AM	0	33	0	0	5	29	0	0	0	0	0	0	0	0	4	0	71
8:30 AM	0	42	0	0	5	28	0	0	0	0	0	0	1	0	3	0	79
8:45 AM	0	26	0	0	2	30	0	0	0	0	0	0	1	0	4	0	63
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	217	1	0	21	183	0	0	0	0	0	0	2	0	20	0	444
	0.00%	99.54%	0.46%	0.00%	10.29%	89.71%	0.00%	0.00%					9.09%	0.00%	90.91%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	104	0	0	10	87	0	0	0	0	0	0	0	0	9	0	210
PEAK HR FACTOR :	0.000	0.788	0.000	0.000	0.500	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.000	0.739
	0.788				0.713								0.563				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	17	1	0	3	23	0	0	0	0	0	0	0	0	2	0	46
4:15 PM	0	19	0	0	5	24	0	0	0	0	0	0	0	0	2	0	50
4:30 PM	0	11	0	0	2	24	0	0	0	0	0	0	0	0	2	0	39
4:45 PM	0	19	0	0	1	21	0	0	0	0	0	0	0	0	1	0	42
5:00 PM	0	11	0	0	1	20	0	0	0	0	0	0	0	0	0	0	32
5:15 PM	0	13	0	0	2	21	0	0	0	0	0	0	0	0	1	0	37
5:30 PM	0	17	0	0	4	23	0	0	0	0	0	0	0	0	0	0	44
5:45 PM	0	21	1	0	0	30	0	0	0	0	0	0	0	0	3	0	55
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	128	2	0	18	186	0	0	0	0	0	0	0	0	11	0	345
	0.00%	98.46%	1.54%	0.00%	8.82%	91.18%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	62	1	0	7	94	0	0	0	0	0	0	0	0	4	0	168
PEAK HR FACTOR :	0.00	0.738	0.250	0.000	0.438	0.783	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.764
	0.716				0.842								0.333				

Day: Thursday
Date: 04/12/2018



National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & S Jurupa Ave
City: Bloomington
Control: Signalized

Project ID: 18-06047-007
Date: 4/12/2018

Cars

NS/EW Streets:	S Riverside Ave				S Riverside Ave				S Jurupa Ave				S Jurupa Ave				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	1	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	331
	19	141	0	0	0	143	9	0	4	0	15	0	0	0	0	0	350
	7:15 AM	127	0	0	0	178	12	0	3	0	10	0	0	0	0	0	397
	7:30 AM	17	152	0	0	198	10	0	6	0	14	0	0	0	0	0	393
	7:45 AM	14	152	0	1	194	10	0	7	0	15	0	0	0	0	0	376
	8:00 AM	13	129	0	0	191	9	0	11	0	23	0	0	0	0	0	304
	8:15 AM	12	97	0	0	171	6	0	8	0	10	0	0	0	0	0	291
8:30 AM	15	103	0	0	148	8	0	5	0	12	0	0	0	0	0	318	
8:45 AM	16	147	0	0	122	8	0	11	0	14	0	0	0	0	0	0	TOTAL
TOTAL VOLUMES :		126	1048	0	1	0	1345	72	0	55	0	113	0	0	0	0	2760
APPROACH %'s :		10.72%	89.19%	0.00%	0.09%	0.00%	94.92%	5.08%	0.00%	32.74%	0.00%	67.26%	0.00%	0	0	0	
PEAK HR :		07:15 AM - 08:15 AM															
PEAK HR VOL :		64	560	0	1	0	761	41	0	27	0	62	0	0	0	0	TOTAL
PEAK HR FACTOR :		0.80	0.921	0.000	0.250	0.000	0.961	0.854	0.000	0.614	0.000	0.674	0.000	0.000	0.000	0.000	0.955
		0.925															

PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		1	2	0	0	1	2	0	0	1	0	1	0	0	0	0		
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM		20	215	0	2	0	224	14	0	13	0	31	0	0	0	0	0	519
4:15 PM		12	179	0	2	0	224	12	0	17	0	41	0	0	0	0	0	487
4:30 PM		7	166	0	0	0	226	8	0	9	0	38	0	0	0	0	0	454
4:45 PM		16	197	0	0	0	219	12	0	9	0	21	0	0	0	0	0	474
5:00 PM		18	218	0	0	0	258	8	0	12	0	36	0	0	0	0	0	550
5:15 PM		13	270	0	1	0	329	9	0	4	0	27	0	0	0	0	0	653
5:30 PM		19	230	0	1	0	319	8	0	4	0	41	0	0	0	0	0	622
5:45 PM		18	217	0	0	0	243	8	0	9	0	26	0	0	0	0	0	521
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH % s :		123	1692	0	6	0	2042	79	0	77	0	261	0	0	0	0	0	4280
		6.75%	92.92%	0.00%	0.33%	0.00%	96.28%	3.72%	0.00%	22.78%	0.00%	77.22%	0.00%	0	0	0	0	
PEAK HR :		05:00 PM - 06:00 PM																
PEAK HR VOL :		68	935	0	2	0	1149	33	0	29	0	130	0	0	0	0	0	TOTAL
PEAK HR FACTOR :		0.89	0.866	0.000	0.500	0.000	0.873	0.917	0.000	0.604	0.000	0.793	0.000	0.000	0.000	0.000	0.000	2346
		0.885																
		0.828																
		0.998																

National Data & Surveying ServicesIntersection Turning Movement Count

Location : S Riverside Ave & S Jurupa Ave
City : Bloomington
Control : Signalized

Project ID: 18-06047-007
Date: 4/12/2018

2axle

NS/EW Streets:		S Riverside Ave				S Jurupa Ave			
AM		NORTHBOUND				EASTBOUND			
		NL	NT	NR	NU	SL	ST	SR	SU
7:00 AM		0	10	0	0	0	6	0	0
7:15 AM		1	7	0	0	0	4	0	0
7:30 AM		2	8	0	2	0	7	0	0
7:45 AM		0	10	0	0	0	7	0	0
8:00 AM		1	5	0	0	0	6	1	0
8:15 AM		1	6	0	0	0	8	1	0
8:30 AM		1	7	0	0	0	8	0	0
8:45 AM		1	11	0	0	0	6	0	0
TOTAL VOLUMES :		7	64	0	2	0	52	2	0
APPROACH %'s :		9.59%	87.67%	0.00%	2.74%	0.00%	96.30%	3.70%	0.00%
PEAK HR :		07:15 AM - 08:15 AM							
PEAK HR VOL :		4	30	0	2	0	24	1	0
PEAK HR FACTOR :		0.500	0.750	0.000	0.250	0.000	0.857	0.250	0.000
		0.750				0.893			
		SOUTHBOUND				WESTBOUND			
		EL	ET	ER	EU	WL	WT	WR	WU
TOTAL		2	0	5	0	0	0	0	0
68		0.500	0.000	0.625	0.000	0.000	0.000	0.000	0.000
0.810		0.583							

PM		NORTHBOUND				SOUTHBOUND			
		NL	NT	NR	NU	SL	ST	SR	SU
		1	2	0	0	0	2	0	0
4:00 PM		0	3	0	0	0	7	0	0
4:15 PM		1	4	0	0	0	7	1	0
4:30 PM		1	4	0	0	0	4	1	0
4:45 PM		3	5	0	0	0	3	3	0
5:00 PM		0	2	0	0	0	0	0	0
5:15 PM		1	5	0	0	0	3	3	0
5:30 PM		0	3	0	0	0	5	0	0
5:45 PM		0	3	0	0	0	4	1	0
TOTAL VOLUMES :		6	29	0	0	0	33	9	0
APPROACH %'s :		17.14%	82.86%	0.00%	0.00%	0.00%	78.57%	21.43%	0.00%
PEAK HR :		05:00 PM - 06:00 PM							
PEAK HR VOL :		1	13	0	0	0	12	4	0
PEAK HR FACTOR :		0.25	0.650	0.000	0.000	0.000	0.600	0.333	0.000
		0.583				0.667			
		EASTBOUND				WESTBOUND			
		EL	ET	ER	EU	WL	WT	WR	WU
TOTAL		1	0	1	0	0	0	0	0
11		0.167%	0.00%	83.33%	0.00%	0.000	0.000	0.000	0.000
15									
12									
15									
2									
12									
8									
8									
TOTAL		0	0	0	0	0	0	0	0
30		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.625									

National Data & Surveying ServicesIntersection Turning Movement Count

Location : S Riverside Ave & S Jurupa Ave
City: Bloomington
Control : Signalized

Project ID: 18-06047-007
Date: 4/12/2018

3axle

NS/EW Streets:				S Riverside Ave				S Riverside Ave				S Jurupa Ave				S Jurupa Ave							
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND										
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU							
	1	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0							
	0	5	0	0	0	4	0	0	1	0	1	0	0	0	0	0							
	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0							
	1	6	0	0	0	5	0	0	0	0	1	0	0	0	0	0							
	0	6	0	0	0	5	0	0	0	0	1	0	0	0	0	0							
	1	8	0	0	0	7	0	0	2	0	1	0	0	0	0	0							
	0	2	0	0	0	11	0	0	0	0	2	0	0	0	0	0							
	1	8	0	0	0	6	0	0	0	0	2	0	0	0	0	0							
0	9	0	0	0	7	0	0	0	1	0	1	0	0	0	0								
TOTAL VOLUMES : 3				NL NT NR NU 0 0 0 0				SL ST SR SU 0 0 0 0				EL ET ER EU 4 0 9 0				WL WT WR WU 0 0 0 0							
APPROACH %'s : 5.77%				94.23% 0.00% 0.00%				0.00% 100.00% 0.00%				30.77% 0.00% 69.23% 0.00%				0.00% 0.00% 0.00%							
PEAK HR :				07:15 AM - 08:15 AM																			
PEAK HR VOL : 2				0.500 0.781 0.000 0.000				0.000 0.786 0.000 0.000				0.250 0.000 0.750 0.000				0.000 0.000 0.000 0.000							
PEAK HR FACTOR :				0.750												0.417				0.000 0.000 0.000 0.000			
TOTAL				115												TOTAL				54			
TOTAL				0.711												TOTAL				0.711			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	1	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	0
	0	4	0	0	0	6	0	0	0	0	3	0	0	0	0	0	13
	0	10	0	0	0	13	0	0	0	0	1	0	0	0	0	0	24
	0	4	0	0	0	7	0	0	0	0	0	0	0	0	0	0	11
	0	10	0	0	0	4	0	0	0	0	0	0	0	0	0	0	14
	1	4	0	0	0	10	0	0	0	0	1	0	0	0	0	0	16
	4	0	0	0	0	13	0	0	0	0	1	0	0	0	0	0	18
	1	6	0	0	0	10	0	0	0	0	0	0	0	0	0	0	17
1	3	0	0	0	9	0	0	0	0	0	0	0	0	0	0	13	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	3	45	0	0	0	72	0	0	0	0	6	0	0	0	0	0	126
	6.25%	93.75%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																
PEAK HR VOL :	3	17	0	0	0	42	0	0	0	0	2	0	0	0	0	0	64
PEAK HR FACTOR :	0.75	0.708	0.000	0.000	0.000	0.808	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.889
	0.714				0.808				0.500								

National Data & Surveying ServicesIntersection Turning Movement Count

Location: S Riverside Ave & S Jurupa Ave
City: Bloomington
Control: Signalized

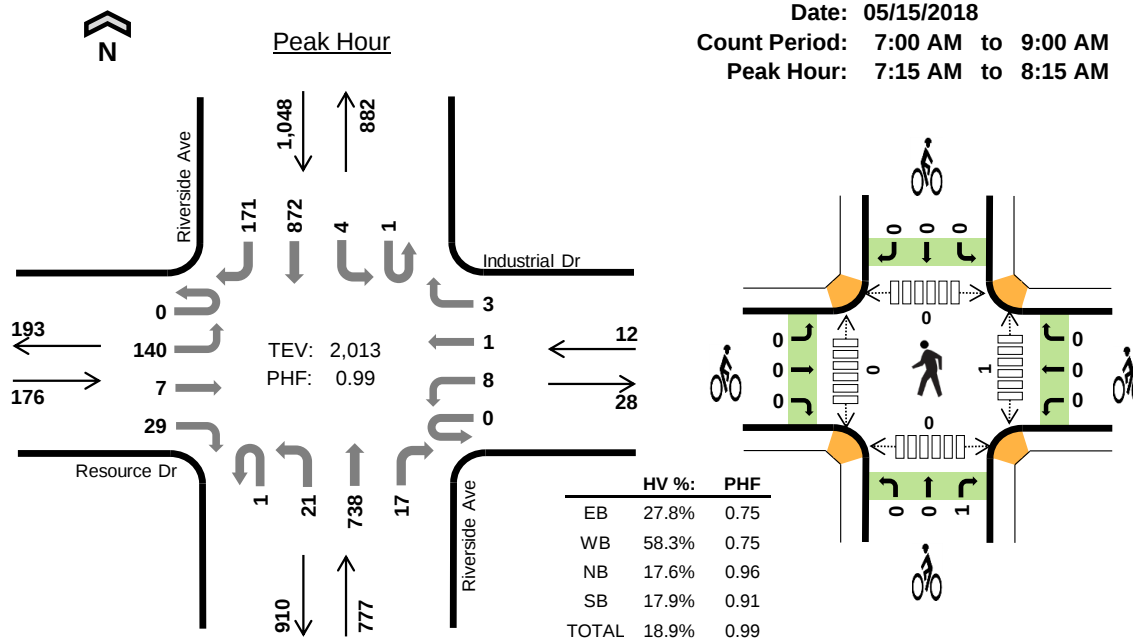
Project ID: 18-06047-007
Date: 4/12/2018

4axle

NS/EW Streets:		S Riverside Ave					S Riverside Ave					S Jurupa Ave					S Jurupa Ave				
		NL	NT	NR	NU		SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
AM	NORTHBOUND																				
	1	2	0	0		0	2	0	0	0	1	0	1	0	0	0	0	0			
	0	22	0	0		0	21	0	0	0	0	0	1	0	0	0	0	0			
	1	22	0	0		0	20	0	0	0	0	0	2	0	0	0	0	0			
	1	15	0	0		0	17	1	0	0	0	0	1	0	0	0	0	0			
7:30 AM	2	29	0	0		0	19	0	0	1	0	1	0	0	0	0	0	0			
7:45 AM	1	23	0	0		0	16	1	0	0	0	5	0	0	0	0	0	0			
8:00 AM	1	33	0	0		0	28	0	0	1	0	0	0	0	0	0	0	0			
8:15 AM	0	37	0	0		0	30	0	0	2	0	6	0	0	0	0	0	0			
8:30 AM	0	25	0	0		0	30	1	0	0	0	2	0	0	0	0	0	0			
8:45 AM	0																				
TOTAL VOLUMES :		NL	NT	NR	NU		SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
APPROACH %:s		6	206	0	0		0	181	3	0	4	0	18	0	0	0	0	0			
		2.83%	97.17%	0.00%	0.00%		0.00%	98.37%	1.63%	0.00%	18.18%	0.00%	81.82%	0.00%	0	0	0	0			
PEAK HR :		07:15 AM - 08:15 AM																			
PEAK HR VOL :		5	89	0	0		0	72	2	0	1	0	9	0	0	0	0	0			
PEAK HR FACTOR :		0.625	0.767	0.000	0.000		0.000	0.900	0.500	0.000	0.250	0.000	0.450	0.000	0.000	0.000	0.000	0.000			
		0.758																			
TOTAL		TOTAL																			
		TOTAL																			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1	2	NR	NU	0	2	SR	SU	0	1	ER	EU	0	WT	WR	WU	
4:00 PM	NL	17	0	0	0	0	24	0	0	0	2	0	0	0	0	0	46
4:15 PM		4	15	0	0	0	21	1	0	0	2	0	0	0	0	0	43
4:30 PM		3	12	0	0	0	21	0	0	0	2	0	0	0	0	0	38
4:45 PM		1	14	0	0	0	20	0	0	1	0	0	0	0	0	0	36
5:00 PM		3	14	0	0	0	21	0	0	0	2	0	0	0	0	0	40
5:15 PM		0	12	0	0	0	19	1	0	0	0	3	0	0	0	0	35
5:30 PM		2	13	0	0	0	21	0	0	0	0	0	0	0	0	0	36
5:45 PM		1	19	0	0	0	26	1	0	0	0	0	0	0	0	0	47
TOTAL VOLUMES :	NL	17	116	0	0	0	173	3	0	1	0	11	0	0	0	0	TOTAL
APPROACH % :	12.78%	87.22%	0.00%	0.00%	0.00%	0.00%	98.30%	1.70%	0.00%	8.33%	0.00%	91.67%	0.00%	0	0	0	321
PEAK HR :	05:00 PM - 06:00 PM																
PEAK HR VOL :	6	58	0	0	0	0	87	2	0	0	0	5	0	0	0	0	TOTAL
PEAK HR FACTOR :	0.50	0.763	0.000	0.000	0.000	0.800	0.837	0.500	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000	158
								0.824				0.417					0.840

Riverside Ave Resource Dr



Two-Hour Count Summaries

Interval Start		Resource Dr				Industrial Dr				Riverside Ave				Riverside Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	19	0	5	0	1	0	0	0	2	159	2	0	1	239	30	458	0
7:15 AM		0	20	0	5	0	3	1	0	0	6	169	9	1	0	236	52	502	0
7:30 AM		0	40	3	7	0	1	0	1	0	5	181	2	0	2	232	34	508	0
7:45 AM		0	35	2	5	0	2	0	2	0	5	195	3	0	1	203	40	493	1,961
8:00 AM		0	45	2	12	0	2	0	0	1	5	193	3	0	1	201	45	510	2,013
8:15 AM		0	42	0	8	0	1	0	1	0	6	159	6	0	0	174	35	432	1,943
8:30 AM		0	49	1	11	0	1	0	2	0	5	169	3	1	2	184	35	463	1,898
8:45 AM		0	29	0	20	0	10	0	3	0	7	154	2	0	2	162	30	419	1,824
Count Total		0	279	8	73	0	21	1	9	1	41	1,379	30	2	9	1,631	301	3,785	0
Peak Hour	All	0	140	7	29	0	8	1	3	1	21	738	17	1	4	872	171	2,013	0
	HV	0	45	3	1	0	5	1	1	0	9	124	4	0	3	143	42	381	0
	HV%	-	32%	43%	3%	-	63%	100%	33%	0%	43%	17%	24%	0%	75%	16%	25%	19%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	13	1	34	46	94	0	0	0	0	0	0	0	0	0	0
7:15 AM	12	2	41	53	108	0	0	0	0	0	0	0	0	0	0
7:30 AM	13	1	25	46	85	0	0	1	0	1	1	0	0	0	1
7:45 AM	15	2	34	45	96	0	0	0	0	0	0	0	0	0	0
8:00 AM	9	2	37	44	92	0	0	0	0	0	0	0	0	0	0
8:15 AM	9	2	51	42	104	0	0	0	0	0	2	0	0	1	3
8:30 AM	12	1	36	63	112	0	0	0	0	0	0	0	0	0	0
8:45 AM	24	9	43	61	137	0	0	0	0	0	0	0	0	0	0
Count Total	107	20	301	400	828	0	0	1	0	1	3	0	0	1	4
Peak Hour	49	7	137	188	381	0	0	1	0	1	1	0	0	0	1

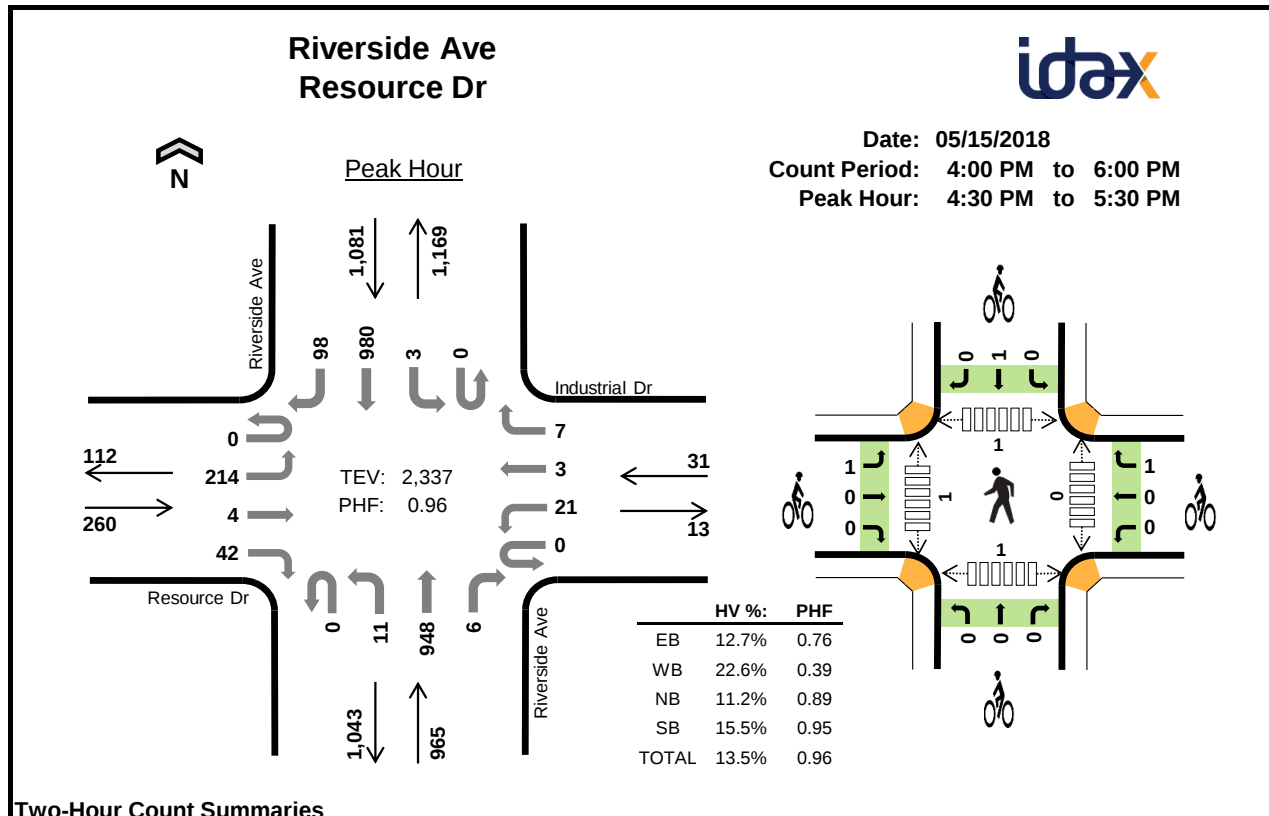
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Resource Dr				Industrial Dr				Riverside Ave				Riverside Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	11	0	2	0	1	0	0	0	1	33	0	0	0	33	13	94	0
7:15 AM	0	12	0	0	0	1	1	0	0	6	32	3	0	0	40	13	108	0
7:30 AM	0	11	1	1	0	1	0	0	0	1	24	0	0	2	32	12	85	0
7:45 AM	0	15	0	0	0	1	0	1	0	1	32	1	0	0	34	11	96	383
8:00 AM	0	7	2	0	0	2	0	0	0	1	36	0	0	1	37	6	92	381
8:15 AM	0	9	0	0	0	1	0	1	0	2	48	1	0	0	30	12	104	377
8:30 AM	0	10	0	2	0	0	0	1	0	1	33	2	1	1	41	20	112	404
8:45 AM	0	13	0	11	0	9	0	0	0	2	39	2	0	2	47	12	137	445
Count Total	0	88	3	16	0	16	1	3	0	15	277	9	1	6	294	99	828	0
Peak Hour	0	45	3	1	0	5	1	1	0	9	124	4	0	3	143	42	381	0

Two-Hour Count Summaries - Bikes

Interval Start	Resource Dr			Industrial Dr			Riverside Ave			Riverside Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	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
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	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
Count Total	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	1	0	0	0	1	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		Resource Dr				Industrial Dr				Riverside Ave				Riverside Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	57	0	9	0	7	0	2	0	0	230	4	0	2	259	24	594	0
4:15 PM		0	26	0	7	0	5	0	1	0	2	242	4	0	1	246	19	553	0
4:30 PM		0	46	1	8	0	17	1	2	0	1	213	3	0	0	231	21	544	0
4:45 PM		0	46	1	9	0	2	1	4	0	4	223	1	0	1	263	19	574	2,265
5:00 PM		0	51	0	12	0	2	1	0	0	1	268	1	0	1	246	27	610	2,281
5:15 PM		0	71	2	13	0	0	0	1	0	5	244	1	0	1	240	31	609	2,337
5:30 PM		0	43	1	7	0	1	0	1	0	7	217	1	1	0	211	51	541	2,334
5:45 PM		0	33	4	23	0	3	0	1	0	10	121	14	0	8	244	66	527	2,287
Count Total		0	373	9	88	0	37	3	12	0	30	1,758	29	1	14	1,940	258	4,552	0
Peak Hour	All	0	214	4	42	0	21	3	7	0	11	948	6	0	3	980	98	2,337	0
	HV	0	22	3	8	0	2	1	4	0	3	102	3	0	2	127	39	316	0
	HV%	-	10%	75%	19%	-	10%	33%	57%	-	27%	11%	50%	-	67%	13%	40%	14%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	12	2	22	54	90	0	0	0	0	0	0	1	0	0	1
4:15 PM	8	1	32	53	94	0	0	0	0	0	0	0	0	0	0
4:30 PM	11	3	26	52	92	0	0	0	0	0	0	0	0	0	0
4:45 PM	12	4	26	37	79	0	0	0	1	1	0	0	0	0	0
5:00 PM	4	0	28	42	74	0	1	0	0	1	0	1	1	0	2
5:15 PM	6	0	28	37	71	1	0	0	0	1	0	0	0	1	1
5:30 PM	6	1	25	36	68	0	0	0	0	0	0	0	0	0	0
5:45 PM	19	1	19	47	86	0	0	0	0	0	0	0	0	0	0
Count Total	78	12	206	358	654	1	1	0	1	3	0	2	1	1	4
Peak Hour	33	7	108	168	316	1	1	0	1	3	0	1	1	1	3

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Resource Dr				Industrial Dr				Riverside Ave				Riverside Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	10	0	2	0	1	0	1	0	0	19	3	0	2	38	14	90	0
4:15 PM	0	4	0	4	0	0	0	1	0	2	29	1	0	1	39	13	94	0
4:30 PM	0	7	1	3	0	2	0	1	0	0	24	2	0	0	39	13	92	0
4:45 PM	0	9	1	2	0	0	1	3	0	2	23	1	0	0	31	6	79	355
5:00 PM	0	2	0	2	0	0	0	0	0	0	28	0	0	1	28	13	74	339
5:15 PM	0	4	1	1	0	0	0	0	0	1	27	0	0	1	29	7	71	316
5:30 PM	0	5	1	0	0	0	0	1	0	0	24	1	0	0	33	3	68	292
5:45 PM	0	9	4	6	0	0	0	1	0	1	16	2	0	4	31	12	86	299
Count Total	0	50	8	20	0	3	1	8	0	6	190	10	0	9	268	81	654	0
Peak Hour	0	22	3	8	0	2	1	4	0	3	102	3	0	2	127	39	316	0

Two-Hour Count Summaries - Bikes

Interval Start	Resource Dr			Industrial Dr			Riverside Ave			Riverside Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	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
4:30 PM	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	1	0	1	1
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	2
5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	1	0	0	0	0	1	0	0	0	0	1	0	3	0
Peak Hour	1	0	0	0	0	1	0	0	0	0	1	0	3	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

National Data & Surveying Services

Intersection Turning Movement Count

Location: Riverside Ave & Agua Mansa Rd
City: Colton
Control: Signalized

Project ID: Historical
Date: 3/7/2019

Total

NS/EW Streets:	Riverside Ave				Riverside Ave				Agua Mansa Rd				Agua Mansa Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
7:00 AM	25	142	9	1	5	165	22	0	28	20	9	0	13	47	16	0	502
7:15 AM	22	148	3	2	6	209	26	0	22	20	14	0	23	65	13	0	573
7:30 AM	22	150	7	2	11	223	26	0	28	23	15	0	12	68	11	0	598
7:45 AM	26	135	3	2	13	195	23	0	26	20	19	0	34	63	5	0	564
8:00 AM	22	139	11	1	12	166	22	0	22	18	16	0	21	43	12	0	505
8:15 AM	30	154	8	1	13	132	19	0	26	23	17	0	11	26	11	0	471
8:30 AM	15	127	10	1	6	152	30	0	34	18	17	0	9	31	12	0	462
8:45 AM	19	117	4	2	11	150	21	0	21	19	10	0	6	27	7	0	414
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	181	1112	55	12	77	1392	189	0	207	161	117	0	129	370	87	0	4089
	13.31%	81.76%	4.04%	0.88%	4.64%	83.96%	11.40%	0.00%	42.68%	33.20%	24.12%	0.00%	22.01%	63.14%	14.85%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	92	572	24	7	42	793	97	0	98	81	64	0	90	239	41	0	2240
PEAK HR FACTOR :	0.885	0.953	0.545	0.875	0.808	0.889	0.933	0.000	0.875	0.880	0.842	0.000	0.662	0.879	0.788	0.000	0.936
	0.960				0.896				0.920				0.907				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
4:00 PM	26	165	11	6	14	180	17	0	37	94	45	0	18	40	12	0	665
4:15 PM	27	174	22	3	24	223	24	0	21	103	32	0	9	31	18	0	711
4:30 PM	23	174	14	0	17	204	32	0	35	97	36	0	11	46	14	0	703
4:45 PM	31	183	24	3	17	221	32	0	25	72	26	1	6	40	13	0	694
5:00 PM	26	167	18	4	20	230	34	0	28	109	45	0	16	32	13	0	742
5:15 PM	32	178	23	4	17	236	21	0	24	93	38	0	18	43	8	0	735
5:30 PM	19	148	9	0	20	215	22	0	25	102	40	1	14	35	22	0	672
5:45 PM	19	152	18	4	19	212	16	0	29	79	33	0	17	31	11	0	640
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	203	1341	139	24	148	1721	198	0	224	749	295	2	109	298	111	0	5562
	11.89%	78.56%	8.14%	1.41%	7.16%	83.26%	9.58%	0.00%	17.64%	58.98%	23.23%	0.16%	21.04%	57.53%	21.43%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	112	702	79	11	71	891	119	0	112	371	145	1	51	161	48	0	2874
PEAK HR FACTOR :	0.875	0.959	0.823	0.688	0.888	0.944	0.875	0.000	0.800	0.851	0.806	0.250	0.708	0.875	0.857	0.000	0.968
	0.938				0.952				0.864				0.915				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Riverside Ave & Agua Mansa Rd
City: Colton
Control: Signalized

Project ID: Historical
Date: 3/7/2019

Cars

NS/EW Streets:	Riverside Ave				Riverside Ave				Agua Mansa Rd				Agua Mansa Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
7:00 AM	21	123	4	1	4	150	17	0	24	17	6	0	10	42	3	0	422
7:15 AM	19	132	0	2	3	192	19	0	16	20	11	0	19	58	11	0	502
7:30 AM	19	136	4	2	8	213	18	0	20	20	11	0	9	63	6	0	529
7:45 AM	17	123	0	2	8	176	12	0	21	16	14	0	31	59	2	0	481
8:00 AM	12	120	8	1	7	142	16	0	18	15	14	0	17	37	9	0	416
8:15 AM	22	136	8	1	8	102	13	0	19	18	12	0	11	23	7	0	380
8:30 AM	12	109	8	1	3	119	21	0	20	14	9	0	6	22	5	0	349
8:45 AM	9	97	4	2	6	110	15	0	14	18	5	0	5	21	6	0	312
TOTAL VOLUMES :	NL 131	NT 976	NR 36	NU 12	SL 47	ST 1204	SR 131	SU 0	EL 152	ET 138	ER 82	EU 0	WL 108	WT 325	WR 49	WU 0	TOTAL 3391
APPROACH %'s :	11.34%	84.50%	3.12%	1.04%	3.40%	87.12%	9.48%	0.00%	40.86%	37.10%	22.04%	0.00%	22.41%	67.43%	10.17%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	67	511	12	7	26	723	65	0	75	71	50	0	76	217	28	0	1928
PEAK HR FACTOR :	0.88	0.939	0.375	0.875	0.813	0.849	0.855	0.000	0.893	0.888	0.893	0.000	0.613	0.861	0.636	0.000	0.911
	0.927				0.851				0.961				0.872				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
4:00 PM	18	157	9	6	10	163	10	0	29	92	37	0	16	37	9	0	593
4:15 PM	20	157	20	3	18	203	15	0	15	98	28	0	7	26	12	0	622
4:30 PM	18	157	9	0	15	193	25	0	31	95	33	0	8	39	11	0	634
4:45 PM	21	168	18	3	13	207	22	0	18	69	23	1	4	36	10	0	613
5:00 PM	22	156	17	4	17	217	24	0	23	104	43	0	16	27	7	0	677
5:15 PM	30	166	20	4	15	222	17	0	16	92	34	0	17	36	3	0	672
5:30 PM	16	135	8	0	17	204	12	0	19	96	36	1	13	33	11	0	601
5:45 PM	11	142	15	4	15	200	12	0	21	76	28	0	14	27	5	0	570
TOTAL VOLUMES :	NL 156	NT 1238	NR 116	NU 24	SL 120	ST 1609	SR 137	SU 0	EL 172	ET 722	ER 262	EU 2	WL 95	WT 261	WR 68	WU 0	TOTAL 4982
APPROACH %'s :	10.17%	80.70%	7.56%	1.56%	6.43%	86.23%	7.34%	0.00%	14.85%	62.35%	22.63%	0.17%	22.41%	61.56%	16.04%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	91	647	64	11	60	839	88	0	88	360	133	1	45	138	31	0	2596
PEAK HR FACTOR :	0.76	0.963	0.800	0.688	0.882	0.945	0.880	0.000	0.710	0.865	0.773	0.250	0.662	0.885	0.705	0.000	0.959
	0.924				0.956				0.856				0.922				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Riverside Ave & Agua Mansa Rd
City: Colton
Control: Signalized

Project ID: Historical
Date: 3/7/2019

2axle

NS/EW Streets:	Riverside Ave				Riverside Ave				Agua Mansa Rd				Agua Mansa Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
7:00 AM	2	11	4	0	0	3	2	0	0	3	1	0	1	0	2	0	29
7:15 AM	2	6	1	0	1	7	1	0	3	0	1	0	1	2	0	0	25
7:30 AM	1	7	1	0	1	1	1	0	1	2	1	0	2	2	1	0	21
7:45 AM	5	6	2	0	2	6	2	0	2	0	3	0	1	1	1	0	31
8:00 AM	4	3	1	0	0	4	1	0	0	1	1	0	2	2	1	0	20
8:15 AM	6	4	0	0	1	11	1	0	1	1	3	0	0	0	0	0	28
8:30 AM	1	7	0	0	0	18	1	0	1	1	2	0	0	3	1	0	35
8:45 AM	2	5	0	0	1	24	0	0	1	0	1	0	0	1	0	0	35
TOTAL VOLUMES :	NL 23	NT 49	NR 9	NU 0	SL 6	ST 74	SR 9	SU 0	EL 9	ET 8	ER 13	EU 0	WL 7	WT 11	WR 6	WU 0	TOTAL 224
APPROACH %'s :	28.40%	60.49%	11.11%	0.00%	6.74%	83.15%	10.11%	0.00%	30.00%	26.67%	43.33%	0.00%	29.17%	45.83%	25.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	12	22	5	0	4	18	5	0	6	3	6	0	6	7	3	0	97
PEAK HR FACTOR :	0.600	0.786	0.625	0.000	0.500	0.643	0.625	0.000	0.500	0.375	0.500	0.000	0.750	0.875	0.750	0.000	0.782
	0.750				0.675				0.750				0.800				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
4:00 PM	5	5	2	0	0	4	2	0	1	1	4	0	2	1	1	0	28
4:15 PM	4	10	1	0	1	5	4	0	0	5	1	0	2	2	1	0	36
4:30 PM	3	6	3	0	0	3	1	0	1	1	3	0	2	2	0	0	25
4:45 PM	7	4	2	0	1	3	3	0	0	2	2	0	2	1	0	0	27
5:00 PM	3	3	0	0	0	6	1	0	2	4	1	0	0	3	0	0	23
5:15 PM	1	3	1	0	0	1	1	0	0	0	2	0	1	1	0	0	11
5:30 PM	1	3	0	0	0	3	0	0	1	3	3	0	0	2	0	0	16
5:45 PM	4	1	0	0	0	2	0	0	0	1	0	0	0	1	0	0	9
TOTAL VOLUMES :	NL 28	NT 35	NR 9	NU 0	SL 2	ST 27	SR 12	SU 0	EL 5	ET 17	ER 16	EU 0	WL 9	WT 13	WR 2	WU 0	TOTAL 175
APPROACH %'s :	38.89%	48.61%	12.50%	0.00%	4.88%	65.85%	29.27%	0.00%	13.16%	44.74%	42.11%	0.00%	37.50%	54.17%	8.33%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	14	16	6	0	1	13	6	0	3	7	8	0	5	7	0	0	86
PEAK HR FACTOR :	0.50	0.667	0.500	0.000	0.250	0.542	0.500	0.000	0.375	0.438	0.667	0.000	0.625	0.583	0.000	0.000	0.796
	0.692				0.714				0.643				0.750				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Riverside Ave & Agua Mansa Rd
City: Colton
Control: Signalized

Project ID: Historical
Date: 3/7/2019

3axle

NS/EW Streets:	Riverside Ave				Riverside Ave				Agua Mansa Rd				Agua Mansa Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
7:00 AM	0	2	0	0	1	1	1	0	1	0	1	0	2	1	3	0	13
7:15 AM	1	0	1	0	1	3	2	0	0	0	1	0	3	3	1	0	16
7:30 AM	0	3	1	0	0	2	0	0	4	1	1	0	0	0	3	0	15
7:45 AM	0	2	1	0	1	4	2	0	0	2	1	0	2	0	0	0	15
8:00 AM	1	5	0	0	1	6	2	0	1	0	0	0	2	1	0	0	19
8:15 AM	1	3	0	0	1	8	1	0	2	0	2	0	0	1	2	0	21
8:30 AM	0	2	0	0	1	5	2	0	4	0	1	0	1	1	2	0	19
8:45 AM	2	2	0	0	1	1	3	0	2	0	3	0	0	2	0	0	16
TOTAL VOLUMES :	NL 5	NT 19	NR 3	NU 0	SL 7	ST 30	SR 13	SU 0	EL 14	ET 3	ER 10	EU 0	WL 10	WT 9	WR 11	WU 0	TOTAL 134
APPROACH %'s :	18.52%	70.37%	11.11%	0.00%	14.00%	60.00%	26.00%	0.00%	51.85%	11.11%	37.04%	0.00%	33.33%	30.00%	36.67%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	2	10	3	0	3	15	6	0	5	3	3	0	7	4	4	0	65
PEAK HR FACTOR :	0.500	0.500	0.750	0.000	0.750	0.625	0.750	0.000	0.313	0.375	0.750	0.000	0.583	0.333	0.333	0.000	0.855
	0.625				0.667				0.458				0.536				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
4:00 PM	0	1	0	0	1	6	0	0	2	0	2	0	0	1	0	0	13
4:15 PM	2	0	0	0	2	6	0	0	0	0	1	0	0	0	0	0	11
4:30 PM	1	1	0	0	0	3	1	0	0	0	0	0	0	1	0	0	7
4:45 PM	2	1	1	0	0	3	2	0	0	0	0	0	0	1	1	0	11
5:00 PM	0	1	1	0	1	3	6	0	0	0	0	0	0	1	0	0	13
5:15 PM	1	3	2	0	0	6	0	0	0	1	1	0	0	1	0	0	15
5:30 PM	1	4	1	0	0	6	4	0	1	0	0	0	1	0	2	0	20
5:45 PM	2	3	2	0	0	3	1	0	0	1	2	0	1	0	3	0	18
TOTAL VOLUMES :	NL 9	NT 14	NR 7	NU 0	SL 4	ST 36	SR 14	SU 0	EL 3	ET 2	ER 6	EU 0	WL 2	WT 5	WR 6	WU 0	TOTAL 108
APPROACH %'s :	30.00%	46.67%	23.33%	0.00%	7.41%	66.67%	25.93%	0.00%	27.27%	18.18%	54.55%	0.00%	15.38%	38.46%	46.15%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	4	6	4	0	1	15	9	0	0	1	1	0	0	4	1	0	46
PEAK HR FACTOR :	0.50	0.500	0.500	0.000	0.250	0.625	0.375	0.000	0.000	0.250	0.250	0.000	0.000	1.000	0.250	0.000	0.767
	0.583				0.625				0.250				0.625				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Riverside Ave & Agua Mansa Rd
City: Colton
Control: Signalized

Project ID: Historical
Date: 3/7/2019

4axle

NS/EW Streets:	Riverside Ave				Riverside Ave				Agua Mansa Rd				Agua Mansa Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
7:00 AM	2	6	1	0	0	11	2	0	3	0	1	0	0	4	8	0	38
7:15 AM	0	10	1	0	1	7	4	0	3	0	1	0	0	2	1	0	30
7:30 AM	2	4	1	0	2	7	7	0	3	0	2	0	1	3	1	0	33
7:45 AM	4	4	0	0	2	9	7	0	3	2	1	0	0	3	2	0	37
8:00 AM	5	11	2	0	4	14	3	0	3	2	1	0	0	3	2	0	50
8:15 AM	1	11	0	0	3	11	4	0	4	4	0	0	0	2	2	0	42
8:30 AM	2	9	2	0	2	10	6	0	9	3	5	0	2	5	4	0	59
8:45 AM	6	13	0	0	3	15	3	0	4	1	1	0	1	3	1	0	51
TOTAL VOLUMES :	NL 22	NT 68	NR 7	NU 0	SL 17	ST 84	SR 36	SU 0	EL 32	ET 12	ER 12	EU 0	WL 4	WT 25	WR 21	WU 0	TOTAL 340
APPROACH %'s :	22.68%	70.10%	7.22%	0.00%	12.41%	61.31%	26.28%	0.00%	57.14%	21.43%	21.43%	0.00%	8.00%	50.00%	42.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	11	29	4	0	9	37	21	0	12	4	5	0	1	11	6	0	150
PEAK HR FACTOR :	0.550	0.659	0.500	0.000	0.563	0.661	0.750	0.000	1.000	0.500	0.625	0.000	0.250	0.917	0.750	0.000	0.750
	0.611				0.798				0.875				0.900				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
4:00 PM	3	2	0	0	3	7	5	0	5	1	2	0	0	1	2	0	31
4:15 PM	1	7	1	0	3	9	5	0	6	0	2	0	0	3	5	0	42
4:30 PM	1	10	2	0	2	5	5	0	3	1	0	0	1	4	3	0	37
4:45 PM	1	10	3	0	3	8	5	0	7	1	1	0	0	2	2	0	43
5:00 PM	1	7	0	0	2	4	3	0	3	1	1	0	0	1	6	0	29
5:15 PM	0	6	0	0	2	7	3	0	8	0	1	0	0	5	5	0	37
5:30 PM	1	6	0	0	3	2	6	0	4	3	1	0	0	0	9	0	35
5:45 PM	2	6	1	0	4	7	3	0	8	1	3	0	2	3	3	0	43
TOTAL VOLUMES :	NL 10	NT 54	NR 7	NU 0	SL 22	ST 49	SR 35	SU 0	EL 44	ET 8	ER 11	EU 0	WL 3	WT 19	WR 35	WU 0	TOTAL 297
APPROACH %'s :	14.08%	76.06%	9.86%	0.00%	20.75%	46.23%	33.02%	0.00%	69.84%	12.70%	17.46%	0.00%	5.26%	33.33%	61.40%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	3	33	5	0	9	24	16	0	21	3	3	0	1	12	16	0	146
PEAK HR FACTOR :	0.75	0.825	0.417	0.000	0.750	0.750	0.800	0.000	0.656	0.750	0.750	0.000	0.250	0.600	0.667	0.000	0.849
	0.732				0.766				0.750				0.725				

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, June 05, 2018

CITY:

Rialto

JOB #: SC

LOCATION:

South Riverside between I-10 EB Ramps and Slover

AM TIME	1	2	3	4	5	6	TOTAL	PM Time	1	2	3	4	5	6	TOTAL
0:00	74	1	0	17	0	0	92	12:00	184	25	12	55	0	0	276
0:15	78	1	3	22	0	0	104	12:15	173	22	17	57	0	1	270
0:30	55	1	3	30	0	0	89	12:30	187	30	9	57	0	0	283
0:45	57	1	1	32	0	0	91	12:45	167	21	15	46	0	1	250
1:00	53	4	4	29	0	0	90	13:00	172	14	12	44	1	1	244
1:15	39	2	1	22	0	0	64	13:15	188	20	20	37	0	1	266
1:30	54	0	1	26	0	0	81	13:30	184	14	14	46	0	0	258
1:45	41	0	1	22	0	0	64	13:45	212	28	14	52	0	1	307
2:00	36	0	1	20	0	0	57	14:00	261	28	14	41	0	1	345
2:15	42	1	0	37	0	0	80	14:15	221	26	12	39	0	1	299
2:30	43	1	2	11	0	0	57	14:30	296	29	13	26	0	0	364
2:45	28	2	1	27	0	0	58	14:45	334	19	16	24	0	2	395
3:00	36	0	0	19	0	0	55	15:00	306	27	13	35	0	1	382
3:15	41	1	2	36	0	0	80	15:15	300	23	10	34	0	1	368
3:30	45	3	1	23	0	0	72	15:30	323	17	9	29	0	0	378
3:45	66	3	0	16	0	0	85	15:45	379	16	12	24	0	1	432
4:00	67	4	3	34	0	0	108	16:00	330	17	13	24	0	0	384
4:15	72	3	7	34	0	0	116	16:15	349	23	5	36	0	0	413
4:30	58	5	4	50	0	0	117	16:30	364	20	6	34	0	0	424
4:45	66	7	7	32	0	0	112	16:45	372	21	5	18	0	0	416
5:00	52	2	3	30	0	0	87	17:00	423	21	8	26	0	0	478
5:15	71	6	10	33	0	0	120	17:15	363	21	4	29	1	0	418
5:30	63	7	6	32	0	0	108	17:30	334	25	6	35	0	2	402
5:45	88	14	11	41	0	0	154	17:45	358	9	5	23	0	0	395
6:00	99	11	12	42	0	0	164	18:00	342	14	4	24	0	0	384
6:15	102	23	13	42	0	0	180	18:15	324	12	4	24	0	1	365
6:30	125	13	7	36	0	0	181	18:30	307	14	5	42	0	0	368
6:45	120	19	15	32	0	0	186	18:45	321	12	7	38	0	0	378
7:00	131	17	15	47	0	0	210	19:00	173	14	8	29	0	0	224
7:15	128	19	16	25	0	0	188	19:15	166	9	1	19	0	0	195
7:30	150	19	12	36	0	0	217	19:30	125	8	3	16	0	0	152
7:45	161	19	16	36	0	0	232	19:45	121	5	3	22	0	0	151
8:00	122	23	15	42	0	1	203	20:00	128	10	1	19	0	0	158
8:15	146	28	11	61	0	1	247	20:15	118	7	8	28	0	0	161
8:30	180	28	33	51	0	0	292	20:30	106	12	6	27	1	0	152
8:45	164	37	25	52	0	0	278	20:45	101	4	6	26	0	0	137
9:00	149	49	20	51	0	1	270	21:00	91	6	5	28	0	0	130
9:15	148	44	6	69	0	1	268	21:15	80	4	6	23	0	0	113
9:30	174	40	15	48	1	2	280	21:30	83	4	2	30	0	0	119
9:45	139	23	13	58	1	0	234	21:45	91	4	6	19	0	0	120
10:00	140	39	14	52	0	0	245	22:00	119	4	4	25	0	0	152
10:15	127	31	18	42	0	0	218	22:15	119	0	2	28	0	0	149
10:30	149	30	13	53	0	1	246	22:30	128	4	2	19	0	0	153
10:45	165	28	13	46	0	1	253	22:45	115	1	3	28	0	1	148
11:00	163	25	17	48	1	1	255	23:00	99	2	7	20	0	0	128
11:15	167	37	8	55	0	1	268	23:15	77	2	5	19	0	0	103
11:30	157	27	5	56	0	0	245	23:30	63	1	2	19	0	0	85
11:45	148	21	20	51	1	1	242	23:45	49	6	1	22	0	0	78
TOTAL	4,779	719	424	1,806	4	11	7,743	TOTAL	10,226	675	365	1,465	3	16	12,750
AM PEAK HOUR							8:30 AM	AM PEAK HOUR							4:30 PM
AM PEAK VOLUME							1,108	AM PEAK VOLUME							1,736

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	15,005	1,394	789	3,271	7	27	20,493
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	73.2%	6.8%	3.9%	16.0%	0.0%	0.1%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	31,784	2,897	1,621	6,257	12	55	42,626
CLASS 6	Buses	% OF TOTAL	74.6%	6.8%	3.8%	14.7%	0.0%	0.1%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, June 05, 2018

JOB #: SC

CITY: Rialto

LOCATION: South Riverside between I-10 EB Ramps and Slover

AM TIME	1	2	3	4	5	6	TOTAL	PM Time	1	2	3	4	5	6	TOTAL
0:00	37	0	6	29	0	0	72	12:00	147	24	15	41	0	0	227
0:15	51	3	4	31	0	0	89	12:15	204	31	14	44	0	0	293
0:30	33	1	4	47	0	0	85	12:30	236	16	16	47	0	3	318
0:45	34	1	1	28	0	0	64	12:45	215	27	21	40	0	1	304
1:00	27	1	4	22	0	0	54	13:00	202	22	12	42	0	1	279
1:15	27	0	1	26	0	0	54	13:15	198	20	19	44	0	0	281
1:30	39	0	2	24	0	0	65	13:30	242	25	11	44	0	0	322
1:45	54	1	3	18	0	0	76	13:45	231	20	9	38	0	0	298
2:00	45	2	4	21	0	0	72	14:00	196	30	15	34	0	1	276
2:15	46	0	2	28	0	0	76	14:15	216	30	19	39	0	1	305
2:30	55	3	4	20	0	0	82	14:30	219	26	14	39	0	0	298
2:45	77	1	2	28	0	0	108	14:45	242	28	14	39	0	1	324
3:00	58	7	4	33	0	0	102	15:00	239	30	11	44	0	1	325
3:15	86	3	1	27	0	0	117	15:15	218	34	17	26	0	0	295
3:30	149	8	1	27	0	0	185	15:30	268	29	15	40	0	1	353
3:45	157	3	3	21	0	0	184	15:45	236	32	12	26	0	0	306
4:00	131	7	4	18	0	0	160	16:00	207	25	13	38	0	0	283
4:15	147	4	4	18	0	0	173	16:15	247	24	14	12	0	0	297
4:30	184	7	2	27	0	0	220	16:30	301	30	14	31	1	0	377
4:45	236	8	6	27	0	0	277	16:45	259	29	9	22	1	0	320
5:00	189	11	1	24	0	0	225	17:00	213	18	6	24	0	0	261
5:15	274	11	5	18	0	0	308	17:15	257	17	6	21	1	0	302
5:30	413	18	0	22	0	0	453	17:30	263	19	7	23	0	0	312
5:45	391	20	5	25	0	0	441	17:45	284	23	5	32	0	0	344
6:00	287	14	9	27	1	0	338	18:00	252	17	8	36	0	0	313
6:15	312	23	5	31	0	1	372	18:15	251	27	5	32	0	0	315
6:30	350	23	6	34	0	0	413	18:30	238	18	11	31	0	1	299
6:45	391	25	14	31	0	0	461	18:45	205	15	14	39	0	0	273
7:00	298	35	16	36	0	4	389	19:00	128	8	5	31	0	0	172
7:15	316	21	13	25	0	0	375	19:15	119	12	3	39	0	0	173
7:30	392	21	10	25	0	0	448	19:30	111	4	4	26	0	0	145
7:45	334	16	9	34	0	0	393	19:45	117	4	7	38	0	0	166
8:00	266	32	19	38	0	1	356	20:00	103	8	4	21	0	0	136
8:15	215	19	17	29	0	0	280	20:15	112	8	5	24	0	0	149
8:30	162	13	19	33	0	0	227	20:30	112	4	9	37	0	0	162
8:45	156	19	10	28	0	2	215	20:45	118	4	6	33	0	0	161
9:00	133	23	5	29	0	2	192	21:00	105	1	8	20	0	0	134
9:15	148	31	23	37	0	0	239	21:15	106	2	4	21	0	0	133
9:30	156	17	16	42	1	1	233	21:30	115	4	3	23	0	0	145
9:45	163	25	11	35	0	0	234	21:45	121	4	8	24	0	0	157
10:00	152	34	7	39	0	0	232	22:00	81	2	6	28	0	0	117
10:15	148	31	14	44	0	0	237	22:15	108	4	5	21	0	0	138
10:30	166	36	11	47	0	0	260	22:30	136	3	4	27	0	1	171
10:45	176	28	17	42	0	0	263	22:45	105	1	4	29	0	0	139
11:00	143	34	14	47	0	0	238	23:00	66	1	4	36	0	0	107
11:15	137	26	17	50	0	1	231	23:15	52	0	8	20	0	0	80
11:30	159	42	17	43	0	3	264	23:30	58	0	3	32	0	0	93
11:45	170	34	13	29	0	1	247	23:45	50	1	1	24	0	0	76
TOTAL	8,270	742	385	1,464	2	16	10,879	TOTAL	8,509	761	447	1,522	3	12	11,254
AM PEAK HOUR							6:45 AM	AM PEAK HOUR							2:45 PM
AM PEAK VOLUME							1,673	AM PEAK VOLUME							1,297

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	16,779	1,503	832	2,986	5	28	22,133
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	75.8%	6.8%	3.8%	13.5%	0.0%	0.1%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV								
CLASS 6	BUS								

VOLUME

S Riverside Ave Bet. Slover Ave & Santa Ana Ave

Day: Thursday
Date: 5/10/2018City: Bloomington
Project #: CA18_6066_037

DAILY TOTALS					NB	SB	EB					WB	Total	
					22,640	23,113						0		
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL		
00:00	132	87			219		12:00	331	337			668		
00:15	115	73			188		12:15	334	339			673		
00:30	145	82			227		12:30	248	424			672		
00:45	108	500	117	359	225	859	12:45	311	1224	381	1481	692	2705	
01:00	95	95			190		13:00	300	307			607		
01:15	107	84			191		13:15	266	292			558		
01:30	138	91			229		13:30	344	355			699		
01:45	79	419	84	354	163	773	13:45	352	1262	377	1331	729	2593	
02:00	92	81			173		14:00	347	355			702		
02:15	93	105			198		14:15	318	373			691		
02:30	116	115			231		14:30	415	340			755		
02:45	99	400	96	397	195	797	14:45	399	1479	362	1430	761	2909	
03:00	113	96			209		15:00	383	360			743		
03:15	138	141			279		15:15	387	372			759		
03:30	140	185			325		15:30	357	384			741		
03:45	133	524	202	624	335	1148	15:45	375	1502	365	1481	740	2983	
04:00	184	146			330		16:00	363	334			697		
04:15	172	148			320		16:15	248	335			583		
04:30	170	197			367		16:30	338	342			680		
04:45	170	696	252	743	422	1439	16:45	295	1244	330	1341	625	2585	
05:00	132	213			345		17:00	280	311			591		
05:15	151	232			383		17:15	299	355			654		
05:30	175	333			508		17:30	354	375			729		
05:45	198	656	354	1132	552	1788	17:45	332	1265	340	1381	672	2646	
06:00	189	314			503		18:00	293	266			559		
06:15	210	262			472		18:15	290	234			524		
06:30	279	321			600		18:30	225	232			457		
06:45	255	933	366	1263	621	2196	18:45	271	1079	204	936	475	2015	
07:00	281	357			638		19:00	225	190			415		
07:15	264	332			596		19:15	184	176			360		
07:30	295	284			579		19:30	191	151			342		
07:45	297	1137	345	1318	642	2455	19:45	213	813	166	683	379	1496	
08:00	260	333			593		20:00	217	171			388		
08:15	292	315			607		20:15	221	146			367		
08:30	314	331			645		20:30	208	149			357		
08:45	287	1153	280	1259	567	2412	20:45	163	809	147	613	310	1422	
09:00	304	271			575		21:00	146	126			272		
09:15	264	299			563		21:15	172	134			306		
09:30	327	248			575		21:30	221	143			364		
09:45	304	1199	285	1103	589	2302	21:45	160	699	166	569	326	1268	
10:00	334	240			574		22:00	136	152			288		
10:15	298	293			591		22:15	176	132			308		
10:30	321	288			609		22:30	180	132			312		
10:45	312	1265	281	1102	593	2367	22:45	172	664	119	535	291	1199	
11:00	244	267			511		23:00	217	165			382		
11:15	323	273			596		23:15	136	127			263		
11:30	306	315			621		23:30	106	115			221		
11:45	270	1143	309	1164	579	2307	23:45	116	575	107	514	223	1089	
TOTALS	10025		10818		20843		TOTALS	12615		12295		24910		
SPLIT %	48.1%		51.9%		45.6%		SPLIT %	50.6%		49.4%		54.4%		

DAILY TOTALS					NB	SB					EB	WB	Total	
					22,640	23,113					0	0	45,753	

AM Peak Hour	10:00	11:45			11:45		PM Peak Hour	14:30	12:00			14:30	
AM Pk Volume	1265	1409			2592		PM Pk Volume	1584	1481			3018	
Pk Hr Factor	0.947	0.831			0.963		Pk Hr Factor	0.954	0.873			0.991	
7 - 9 Volume	2290	2577	0	0	4867		4 - 6 Volume	2509	2722	0	0	5231	
7 - 9 Peak Hour	07:45	07:45			07:45		4 - 6 Peak Hour	17:00	17:00			17:00	
7 - 9 Pk Volume	1163	1324	0	0	2487		4 - 6 Pk Volume	1265	1381	0	0	2646	
Pk Hr Factor	0.926	0.959	0.000	0.000	0.964		Pk Hr Factor	0.893	0.921	0.000	0.000	0.907	

VOLUME

S Riverside Ave Bet. Slover Ave & Santa Ana Ave

Day: Saturday
Date: 5/12/2018City: Bloomington
Project #: CA18_6066_037

DAILY TOTALS					NB	SB	EB					WB	Total
					14,971	12,954						0	0
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	152	113			265		12:00	227	146			373	
00:15	156	91			247		12:15	244	187			431	
00:30	130	91			221		12:30	243	198			441	
00:45	83	521	94	389	177	910	12:45	250	964	169	700	419	1664
01:00	112	67			179		13:00	211	184			395	
01:15	111	83			194		13:15	206	202			408	
01:30	123	76			199		13:30	220	182			402	
01:45	109	455	77	303	186	758	13:45	213	850	215	783	428	1633
02:00	107	88			195		14:00	183	218			401	
02:15	115	71			186		14:15	196	191			387	
02:30	73	56			129		14:30	258	192			450	
02:45	93	388	69	284	162	672	14:45	212	849	187	788	399	1637
03:00	106	47			153		15:00	191	185			376	
03:15	107	101			208		15:15	208	154			362	
03:30	114	144			258		15:30	167	179			346	
03:45	75	402	146	438	221	840	15:45	197	763	201	719	398	1482
04:00	159	96			255		16:00	223	177			400	
04:15	122	107			229		16:15	223	143			366	
04:30	118	135			253		16:30	180	145			325	
04:45	110	509	139	477	249	986	16:45	139	765	164	629	303	1394
05:00	123	91			214		17:00	176	163			339	
05:15	92	119			211		17:15	181	136			317	
05:30	137	128			265		17:30	205	147			352	
05:45	126	478	155	493	281	971	17:45	155	717	170	616	325	1333
06:00	112	110			222		18:00	177	147			324	
06:15	108	133			241		18:15	188	126			314	
06:30	151	141			292		18:30	135	135			270	
06:45	128	499	166	550	294	1049	18:45	158	658	113	521	271	1179
07:00	103	134			237		19:00	163	113			276	
07:15	148	134			282		19:15	131	133			264	
07:30	161	170			331		19:30	126	104			230	
07:45	181	593	179	617	360	1210	19:45	114	534	103	453	217	987
08:00	198	114			312		20:00	126	97			223	
08:15	164	153			317		20:15	123	124			247	
08:30	199	145			344		20:30	117	108			225	
08:45	172	733	166	578	338	1311	20:45	94	460	80	409	174	869
09:00	176	156			332		21:00	107	103			210	
09:15	212	143			355		21:15	127	83			210	
09:30	200	187			387		21:30	96	93			189	
09:45	205	793	169	655	374	1448	21:45	96	426	120	399	216	825
10:00	215	174			389		22:00	105	102			207	
10:15	238	214			452		22:15	115	111			226	
10:30	230	145			375		22:30	147	98			245	
10:45	235	918	161	694	396	1612	22:45	117	484	106	417	223	901
11:00	196	174			370		23:00	111	85			196	
11:15	205	152			357		23:15	96	107			203	
11:30	188	190			378		23:30	119	81			200	
11:45	207	796	184	700	391	1496	23:45	90	416	69	342	159	758
TOTALS	7085	6178			13263		TOTALS	7886	6776			14662	
SPLIT %	53.4%	46.6%			47.5%		SPLIT %	53.8%	46.2%			52.5%	

DAILY TOTALS					NB	SB					EB	WB	Total	
					14,971	12,954					0	0	27,925	

AM Peak Hour	11:45	09:30			11:45		PM Peak Hour	12:00	13:15			12:15	
AM Pk Volume	921	744			1636		PM Pk Volume	964	817			1686	
Pk Hr Factor	0.944	0.869			0.927		Pk Hr Factor	0.964	0.937			0.956	
7 - 9 Volume	1326	1195	0	0	2521		4 - 6 Volume	1482	1245	0	0	2727	
7 - 9 Peak Hour	07:45	07:00			07:45		4 - 6 Peak Hour	16:00	16:00			16:00	
7 - 9 Pk Volume	742	617	0	0	1333		4 - 6 Pk Volume	765	629	0	0	1394	
Pk Hr Factor	0.932	0.862	0.000	0.000	0.926		Pk Hr Factor	0.858	0.888	0.000	0.000	0.871	

Appendix E – PCE Calculations

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

DATE: 2/12/20 WEDNESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Rialto Riverside Valley	PROJECT #: LOCATION #: CONTROL:	SC2522 1 SIGNAL
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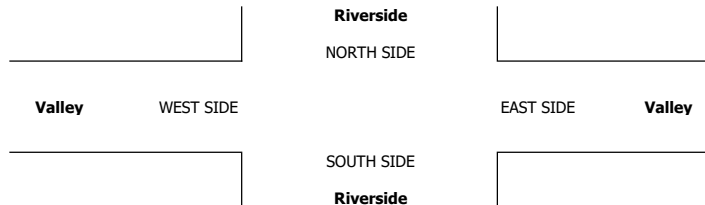
PCE Adjusted	NOTES:								AM PM MD OTHER OTHER	◀ W	▲ N S ▼	▶ E
	Class	1	2	3	4	5	6					
	Factor	1	1.5	2	3	2	2					

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Riverside			Riverside			Valley			Valley			
LANES:	NL 2	NT 2.5	NR 0.5	SL 1	ST 2.5	SR 0.5	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	73	147	36	17	286	8	5	51	130	41	49	12	853
	7:15 AM	100	160	19	14	267	6	11	32	154	61	36	4	861
	7:30 AM	90	164	42	12	326	7	8	51	142	44	51	13	948
	7:45 AM	94	158	63	19	270	8	13	52	123	34	35	8	875
	8:00 AM	64	146	52	10	264	17	10	77	125	34	36	16	849
	8:15 AM	73	148	58	19	211	8	15	38	95	48	55	13	779
	8:30 AM	76	164	55	14	202	14	16	45	106	34	37	22	783
	8:45 AM	85	198	44	9	180	12	11	37	91	46	31	14	756
	VOLUMES	654	1,282	368	114	2,004	80	89	381	965	340	328	101	6,703
	APPROACH %	28%	56%	16%	5%	91%	4%	6%	27%	67%	44%	43%	13%	
APP/DEPART	2,303	/	1,472	2,197	/	3,309	1,434	/	862	769	/	1,061	0	
BEGIN PEAK HR	7:00 AM													
VOLUMES	357	628	160	62	1,148	29	37	185	548	179	170	37	3,537	
APPROACH %	31%	55%	14%	5%	93%	2%	5%	24%	71%	46%	44%	9%		
PEAK HR FACTOR	0.910													0.933
APP/DEPART	1,145	/	701	1,238	/	1,875	769	/	406	385	/	555	0	
PM	4:00 PM	142	373	54	21	206	13	13	70	125	44	89	29	1,178
	4:15 PM	130	295	38	19	209	13	22	69	114	46	52	29	1,034
	4:30 PM	105	347	54	16	195	6	21	63	130	35	60	32	1,062
	4:45 PM	135	311	41	23	202	15	25	64	126	54	80	29	1,103
	5:00 PM	140	313	80	16	195	12	23	64	130	50	73	39	1,133
	5:15 PM	148	319	34	22	169	9	14	78	133	50	93	32	1,100
	5:30 PM	148	341	46	23	233	21	32	58	115	49	69	31	1,162
	5:45 PM	131	286	36	21	189	17	25	53	98	37	59	24	974
	VOLUMES	1,078	2,584	382	160	1,597	105	175	517	969	363	572	244	8,745
	APPROACH %	27%	64%	9%	9%	86%	6%	11%	31%	58%	31%	49%	21%	
APP/DEPART	4,044	/	3,002	1,862	/	2,929	1,661	/	1,059	1,179	/	1,755	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	570	1,284	200	84	799	57	94	264	503	202	314	130	4,497	
APPROACH %	28%	63%	10%	9%	85%	6%	11%	31%	58%	31%	49%	20%		
PEAK HR FACTOR	0.960													0.968
APP/DEPART	2,053	/	1,507	939	/	1,503	860	/	548	646	/	940	0	

					0
					0
					0
					0
					0
					0
					0
					0
0	0	0	0	0	0
					0
					0
					0
					0
					0
					0
					0
0	0	0	0	0	0



Approach	AM Peak Hour (7:00-8:00am)									PM Peak Hour (5:00-6:00pm)								
	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume
		2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE				2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE		
SBL	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
SBT	972	18	2	5	25	2.5%	46	1.8	1018	1044	10	8	10	28	2.6%	61	2.2	1105
SBR	507	5	0	6	11	2.1%	26	2.4	533	369	3	3	2	8	2.1%	17	2.1	386
SBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
NBL	55	18	17	58	93	62.8%	235	2.5	290	173	2	10	35	47	21.4%	128	2.7	301
NBT	769	23	4	24	51	6.2%	115	2.3	884	1459	15	6	8	29	1.9%	59	2.0	1518
NBR	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
NBU	13	0	0	0	0	0.0%	0	0.0	13	0	0	0	0	0	0.0%	0	0.0	0
EBL	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
EBT	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
EBR	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
EBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBL	350	19	7	44	70	16.7%	175	2.5	525	380	13	12	59	84	18.1%	221	2.6	601
WBT	5	0	0	0	0	0.0%	0	0.0	5	3	0	0	0	0	0.0%	0	0.0	3
WBR	337	11	0	2	13	3.7%	23	1.8	360	459	4	1	5	10	2.1%	23	2.3	482
WBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
North Approach Volumes																		
Entering	1479	23	2	11	36	2.4%	72	2.0	1551	1413	13	11	12	36	2.5%	78	2.2	1491
Exiting	1106	34	4	26	64	5.5%	137	2.1	1243	1918	19	7	13	39	2.0%	82	2.1	2000
Total	2585	57	6	37	100	3.7%	209	2.1	2794	3331	32	18	25	75	2.2%	159	2.1	3490
South Approach Volumes																		
Entering	837	41	21	82	144	14.7%	350	2.4	1187	1632	17	16	43	76	4.4%	187	2.5	1819
Exiting	1335	37	9	49	95	6.6%	221	2.3	1556	1424	23	20	69	112	7.3%	282	2.5	1706
Total	2172	78	30	131	239	9.9%	570	2.4	2742	3056	40	36	112	188	5.8%	468	2.5	3524
West Approach Volumes																		
Entering	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
Exiting	567	23	17	64	104	15.5%	261	2.5	828	545	5	13	37	55	9.2%	145	2.6	690
Total	567	23	17	64	104	15.5%	261	2.5	828	545	5	13	37	55	9.2%	145	2.6	690
East Approach Volumes																		
Entering	692	30	7	46	83	10.7%	197	2.4	889	842	17	13	64	94	10.0%	244	2.6	1086
Exiting	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
Total	692	30	7	46	83	10.7%	197	2.4	889	842	17	13	64	94	10.0%	244	2.6	1086
Total Approach Volumes																		
Entering	3008	94	30	139	263	8.0%	618	2.3	3626	3887	47	40	119	206	5.0%	508	2.5	4395
Exiting	3008	94	30	139	263	8.0%	618	2.3	3626	3887	47	40	119	206	5.0%	508	2.5	4395
Total	6016	188	60	278	526	8.0%	1236	2.3	7252	7774	94	80	238	412	5.0%	1015	2.5	8789

Approach	AM Peak Hour (7:00-8:00am)									PM Peak Hour (5:00-6:00pm)								
	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume
		2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE				2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE		
SBL	362	8	1	2	11	2.9%	20	1.8	382	431	2	0	3	5	1.1%	12	2.4	443
SBT	963	27	10	46	83	7.9%	199	2.4	1162	1015	21	20	66	107	9.5%	270	2.5	1285
SBR	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
SBU	2	0	0	0	0	0.0%	0	0.0	2	1	0	0	0	0	0.0%	0	0.0	1
NBL	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
NBT	534	34	20	79	133	19.9%	328	2.5	862	1103	13	15	39	67	5.7%	167	2.5	1270
NBR	195	12	10	51	73	27.2%	191	2.6	386	427	9	10	45	64	13.0%	169	2.6	596
NBU	1	0	0	0	0	0.0%	0	0.0	1	0	0	0	0	0	0.0%	0	0.0	0
EBL	299	9	2	2	13	4.2%	24	1.8	323	558	2	2	2	6	1.1%	13	2.2	571
EBT	5	2	0	0	2	28.6%	3	1.5	8	0	0	0	0	0	0.0%	0	0.0	0
EBR	246	11	10	56	77	23.8%	205	2.7	451	231	7	18	50	75	24.5%	197	2.6	428
EBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBL	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBT	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBR	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
North Approach Volumes																		
Entering	1327	35	11	48	94	6.6%	219	2.3	1546	1447	23	20	69	112	7.2%	282	2.5	1729
Exiting	835	43	22	81	146	14.9%	352	2.4	1187	1662	15	17	41	73	4.2%	180	2.5	1842
Total	2162	78	33	129	240	10.0%	570	2.4	2732	3109	38	37	110	185	5.6%	461	2.5	3570
South Approach Volumes																		
Entering	730	46	30	130	206	22.0%	519	2.5	1249	1530	22	25	84	131	7.9%	335	2.6	1865
Exiting	1210	38	20	102	160	11.7%	403	2.5	1613	1246	28	38	116	182	12.7%	466	2.6	1712
Total	1940	84	50	232	366	15.9%	922	2.5	2862	2776	50	63	200	313	10.1%	801	2.6	3577
West Approach Volumes																		
Entering	550	22	12	58	92	14.3%	231	2.5	781	789	9	20	52	81	9.3%	210	2.6	999
Exiting	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
Total	550	22	12	58	92	14.3%	231	2.5	781	789	9	20	52	81	9.3%	210	2.6	999
East Approach Volumes																		
Entering	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
Exiting	562	22	11	53	86	13.3%	214	2.5	776	858	11	10	48	69	7.4%	181	2.6	1039
Total	562	22	11	53	86	13.3%	214	2.5	776	858	11	10	48	69	7.4%	181	2.6	1039
Total Approach Volumes																		
Entering	2607	103	53	236	392	13.1%	969	2.5	3576	3766	54	65	205	324	7.9%	826	2.5	4592
Exiting	2607	103	53	236	392	13.1%	969	2.5	3576	3766	54	65	205	324	7.9%	826	2.5	4592
Total	5214	206	106	472	784	13.1%	1937	2.5	7151	7532	108	130	410	648	7.9%	1652	2.5	9184

Approach	AM Peak Hour (7:00-8:00am)									PM Peak Hour (5:00-6:00pm)								
	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume
		2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE				2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE		
SBL	19	3	3	2	8	29.6%	17	2.1	36	5	3	2	4	9	64.3%	21	2.3	26
SBT	828	27	16	84	127	13.3%	325	2.6	1153	1035	23	31	92	146	12.4%	373	2.6	1408
SBR	348	11	1	15	27	7.2%	64	2.4	412	194	6	6	20	32	14.2%	81	2.5	275
SBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
NBL	48	3	3	7	13	21.3%	32	2.5	80	17	2	1	2	5	22.7%	11	2.2	28
NBT	471	36	22	113	171	26.6%	437	2.6	908	1066	15	19	71	105	9.0%	274	2.6	1340
NBR	8	1	1	5	7	46.7%	19	2.7	27	10	0	1	3	4	28.6%	11	2.8	21
NBU	1	0	0	0	0	0.0%	0	0.0	1	6	0	0	0	0	0.0%	0	0.0	6
EBL	208	8	4	6	18	8.0%	38	2.1	246	361	6	5	6	17	4.5%	37	2.2	398
EBT	16	2	0	0	2	11.1%	3	1.5	19	102	2	0	3	5	4.7%	12	2.4	114
EBR	20	3	8	9	20	50.0%	48	2.4	68	97	2	5	11	18	15.7%	46	2.6	143
EBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBL	12	3	1	3	7	36.8%	16	2.3	28	4	1	4	6	11	73.3%	28	2.5	32
WBT	17	1	1	2	4	19.0%	10	2.5	27	4	2	2	6	10	71.4%	25	2.5	29
WBR	14	2	3	2	7	33.3%	15	2.1	29	50	1	0	6	7	12.3%	20	2.9	70
WBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
North Approach Volumes																		
Entering	1195	41	20	101	162	11.9%	405	2.5	1600	1234	32	39	116	187	13.2%	474	2.5	1708
Exiting	693	46	29	121	196	22.0%	490	2.5	1183	1477	22	24	83	129	8.0%	330	2.6	1807
Total	1888	87	49	222	358	15.9%	895	2.5	2783	2711	54	63	199	316	10.4%	804	2.5	3515
South Approach Volumes																		
Entering	528	40	26	125	191	26.6%	487	2.5	1015	1099	17	21	76	114	9.4%	296	2.6	1395
Exiting	861	33	25	96	154	15.2%	388	2.5	1249	1142	26	40	109	175	13.3%	446	2.5	1588
Total	1389	73	51	221	345	19.9%	875	2.5	2264	2241	43	61	185	289	11.4%	742	2.6	2983
West Approach Volumes																		
Entering	244	13	12	15	40	14.1%	89	2.2	333	560	10	10	20	40	6.7%	95	2.4	655
Exiting	413	15	5	24	44	9.6%	105	2.4	518	215	10	9	28	47	17.9%	117	2.5	332
Total	657	28	17	39	84	11.3%	193	2.3	850	775	20	19	48	87	10.1%	212	2.4	987
East Approach Volumes																		
Entering	43	6	5	7	18	29.5%	40	2.2	83	58	4	6	18	28	32.6%	72	2.6	130
Exiting	43	6	4	7	17	28.3%	38	2.2	81	117	5	3	10	18	13.3%	44	2.4	161
Total	86	12	9	14	35	28.9%	78	2.2	164	175	9	9	28	46	20.8%	116	2.5	291
Total Approach Volumes																		
Entering	2010	100	63	248	411	17.0%	1020	2.5	3030	2951	63	76	230	369	11.1%	937	2.5	3888
Exiting	2010	100	63	248	411	17.0%	1020	2.5	3030	2951	63	76	230	369	11.1%	937	2.5	3888
Total	4020	200	126	496	822	17.0%	2040	2.5	6060	5902	126	152	460	738	11.1%	1873	2.5	7775

Approach	AM Peak Hour (7:00-8:00am)									PM Peak Hour (5:00-6:00pm)								
	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume
		2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE				2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE		
SBL	22	2	1	11	14	38.9%	38	2.7	60	14	3	5	8	16	53.3%	39	2.4	53
SBT	749	32	15	73	120	13.8%	297	2.5	1046	1076	21	35	90	146	11.9%	372	2.5	1448
SBR	88	4	2	8	14	13.7%	34	2.4	122	61	4	1	2	7	10.3%	14	2.0	75
SBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
NBL	65	6	2	1	9	12.2%	16	1.8	81	63	1	1	5	7	10.0%	19	2.7	82
NBT	523	31	20	95	146	21.8%	372	2.5	895	952	14	20	63	97	9.2%	250	2.6	1202
NBR	6	0	2	7	9	60.0%	25	2.8	31	4	0	1	4	5	55.6%	14	2.8	18
NBU	1	0	0	0	0	0.0%	0	0.0	1	0	0	0	0	0	0.0%	0	0.0	0
EBL	37	4	2	5	11	22.9%	25	2.3	62	78	0	2	7	9	10.3%	25	2.8	103
EBT	3	2	18	3	23	88.5%	48	2.1	51	7	0	2	1	3	30.0%	7	2.3	14
EBR	41	0	1	5	6	12.8%	17	2.8	58	63	0	3	7	10	13.7%	27	2.7	90
EBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBL	3	0	6	6	12	80.0%	30	2.5	33	18	0	5	3	8	30.8%	19	2.4	37
WBT	2	0	1	14	15	88.2%	44	2.9	46	11	1	1	1	3	21.4%	7	2.3	18
WBR	4	4	4	21	29	87.9%	77	2.7	81	46	1	1	4	6	11.5%	16	2.7	62
WBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
North Approach Volumes																		
Entering	859	38	18	92	148	14.7%	369	2.5	1228	1151	28	41	100	169	12.8%	424	2.5	1575
Exiting	564	39	26	121	186	24.8%	474	2.5	1038	1076	15	23	74	112	9.4%	291	2.6	1367
Total	1423	77	44	213	334	19.0%	843	2.5	2266	2227	43	64	174	281	11.2%	715	2.5	2942
South Approach Volumes																		
Entering	595	37	24	103	164	21.6%	413	2.5	1008	1019	15	22	72	109	9.7%	283	2.6	1302
Exiting	794	32	22	84	138	14.8%	344	2.5	1138	1157	21	43	100	164	12.4%	418	2.5	1575
Total	1389	69	46	187	302	17.9%	757	2.5	2146	2176	36	65	172	273	11.1%	700	2.6	2876
West Approach Volumes																		
Entering	81	6	21	13	40	33.1%	90	2.3	171	148	0	7	15	22	12.9%	59	2.7	207
Exiting	155	10	5	23	38	19.7%	94	2.5	249	135	6	3	8	17	11.2%	39	2.3	174
Total	236	16	26	36	78	24.8%	184	2.4	420	283	6	10	23	39	12.1%	98	2.5	381
East Approach Volumes																		
Entering	9	4	11	41	56	86.2%	151	2.7	160	75	2	7	8	17	18.5%	41	2.4	116
Exiting	31	4	21	21	46	59.7%	111	2.4	142	25	3	8	13	24	49.0%	60	2.5	85
Total	40	8	32	62	102	71.8%	262	2.6	302	100	5	15	21	41	29.1%	101	2.5	201
Total Approach Volumes																		
Entering	1544	85	74	249	408	20.9%	1023	2.5	2567	2393	45	77	195	317	11.7%	807	2.5	3200
Exiting	1544	85	74	249	408	20.9%	1023	2.5	2567	2393	45	77	195	317	11.7%	807	2.5	3200
Total	3088	170	148	498	816	20.9%	2045	2.5	5133	4786	90	154	390	634	11.7%	1613	2.5	6399

Approach	AM Peak Hour (7:00-8:00am)									PM Peak Hour (5:00-6:00pm)								
	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume
		2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE				2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE		
SBL	16	0	1	8	9	36.0%	26	2.9	42	9	0	2	7	9	50.0%	25	2.8	34
SBT	753	29	22	76	127	14.4%	316	2.5	1069	1174	21	39	94	154	11.6%	392	2.5	1566
SBR	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
SBU	0	0	0	0	0	0.0%	0	0.0	0	1	0	0	0	0	0.0%	0	0.0	1
NBL	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
NBT	582	32	24	91	147	20.2%	369	2.5	951	949	17	19	62	98	9.4%	250	2.6	1199
NBR	4	0	0	1	1	20.0%	3	3.0	7	6	0	0	1	1	14.3%	3	3.0	9
NBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
EBL	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
EBT	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
EBR	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
EBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBL	0	0	0	0	0	0.0%	0	0.0	0	3	0	0	0	0	0.0%	0	0.0	3
WBT	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBR	7	0	3	7	10	58.8%	27	2.7	34	14	0	4	4	8	36.4%	20	2.5	34
WBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
North Approach Volumes																		
Entering	769	29	23	84	136	15.0%	342	2.5	1111	1184	21	41	101	163	12.1%	417	2.6	1601
Exiting	589	32	27	98	157	21.0%	396	2.5	985	964	17	23	66	106	9.9%	270	2.5	1234
Total	1358	61	50	182	293	17.7%	738	2.5	2096	2148	38	64	167	269	11.1%	686	2.6	2834
South Approach Volumes																		
Entering	586	32	24	92	148	20.2%	372	2.5	958	955	17	19	63	99	9.4%	253	2.6	1208
Exiting	753	29	22	76	127	14.4%	316	2.5	1069	1177	21	39	94	154	11.6%	392	2.5	1569
Total	1339	61	46	168	275	17.0%	688	2.5	2027	2132	38	58	157	253	10.6%	644	2.5	2776
West Approach Volumes																		
Entering	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
Exiting	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
Total	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
East Approach Volumes																		
Entering	7	0	3	7	10	58.8%	27	2.7	34	17	0	4	4	8	32.0%	20	2.5	37
Exiting	20	0	1	9	10	33.3%	29	2.9	49	15	0	2	8	10	40.0%	28	2.8	43
Total	27	0	4	16	20	42.6%	56	2.8	83	32	0	6	12	18	36.0%	48	2.7	80
Total Approach Volumes																		
Entering	1362	61	50	183	294	17.8%	741	2.5	2103	2156	38	64	168	270	11.1%	689	2.6	2845
Exiting	1362	61	50	183	294	17.8%	741	2.5	2103	2156	38	64	168	270	11.1%	689	2.6	2845
Total	2724	122	100	366	588	17.8%	1481	2.5	4205	4312	76	128	336	540	11.1%	1378	2.6	5690

Approach	AM Peak Hour (7:00-8:00am)									PM Peak Hour (5:00-6:00pm)								
	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume
		2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE				2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE		
SBL	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
SBT	632	28	31	104	163	20.5%	416	2.6	1048	1149	12	42	87	141	10.9%	363	2.6	1512
SBR	31	2	0	2	4	11.4%	9	2.3	40	39	4	0	2	6	13.3%	12	2.0	51
SBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
NBL	56	4	2	2	8	12.5%	16	2.0	72	68	1	3	6	10	12.8%	26	2.6	94
NBT	476	29	27	118	174	26.8%	452	2.6	928	935	13	17	58	88	8.6%	228	2.6	1163
NBR	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
NBU	0	0	0	0	0	0.0%	0	0.0	0	2	0	0	0	0	0.0%	0	0.0	2
EBL	35	3	3	3	9	20.5%	20	2.2	55	29	0	0	0	0	0.0%	0	0.0	29
EBT	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
EBR	57	15	6	13	34	37.4%	74	2.2	131	130	0	2	5	7	5.1%	19	2.7	149
EBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
WBL					0	0.0%	0	0.0	0					0	0.0%	0	0.0	0
WBT					0	0.0%	0	0.0	0					0	0.0%	0	0.0	0
WBR					0	0.0%	0	0.0	0					0	0.0%	0	0.0	0
WBU					0	0.0%	0	0.0	0					0	0.0%	0	0.0	0
North Approach Volumes																		
Entering	663	30	31	106	167	20.1%	425	2.5	1088	1188	16	42	89	147	11.0%	375	2.6	1563
Exiting	511	32	30	121	183	26.4%	471	2.6	982	964	13	17	58	88	8.4%	228	2.6	1192
Total	1174	62	61	227	350	23.0%	896	2.6	2070	2152	29	59	147	235	9.8%	603	2.6	2755
South Approach Volumes																		
Entering	532	33	29	120	182	25.5%	468	2.6	1000	1005	14	20	64	98	8.9%	253	2.6	1258
Exiting	689	43	37	117	197	22.2%	490	2.5	1179	1281	12	44	92	148	10.4%	382	2.6	1663
Total	1221	76	66	237	379	23.7%	957	2.5	2178	2286	26	64	156	246	9.7%	635	2.6	2921
West Approach Volumes																		
Entering	92	18	9	16	43	31.9%	93	2.2	185	159	0	2	5	7	4.2%	19	2.7	178
Exiting	87	6	2	4	12	12.1%	25	2.1	112	107	5	3	8	16	13.0%	38	2.4	145
Total	179	24	11	20	55	23.5%	118	2.1	297	266	5	5	13	23	8.0%	57	2.5	323
East Approach Volumes																		
Entering	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
Exiting	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
Total	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
Total Approach Volumes																		
Entering	1287	81	69	242	392	23.3%	986	2.5	2273	2352	30	64	158	252	9.7%	647	2.6	2999
Exiting	1287	81	69	242	392	23.3%	986	2.5	2273	2352	30	64	158	252	9.7%	647	2.6	2999
Total	2574	162	138	484	784	23.3%	1971	2.5	4545	4704	60	128	316	504	9.7%	1294	2.6	5998

Approach	AM Peak Hour (7:00-8:00am)									PM Peak Hour (5:00-6:00pm)								
	Passenger Vehicles	Truck Volumes						Average PCE*	Total PCE Volume	Passenger Vehicles	Truck Volumes						Average PCE*	Total PCE Volume
		2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE				2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE		
SBL	2	Data not available	2	50.0%	5	2.5	7	4	Data not available	6	60.0%	15	2.6	19				
SBT	771		139	15.3%	350		1121	820		121	12.9%	310		1130				
SBR	107		49	31.4%	123		230	140		35	20.0%	90		230				
SBU	1		0	0.0%	0	1	1	0		0.0%	0	1						
NBL	9		9	50.0%	23	32	21	2		8.7%	5	26						
NBT	583		121	17.2%	304	887	755	95		11.2%	243	998						
NBR	12		4	25.0%	10	22	14	3		17.6%	8	22						
NBU	0		0	0.0%	0	0	0	0		0.0%	0	0						
EBL	65		49	43.0%	123	188	178	20		10.1%	50	228						
EBT	4		13	76.5%	33	37	0	17		0.0%	43	43						
EBR	19		3	13.6%	8	27	46	9		16.4%	23	69						
EBU	0		0	0.0%	0	0	3	1		25.0%	3	6						
WBL	3		4	57.1%	11	14	6	0		0.0%	0	6						
WBT	0		1	0.0%	3	3	1	0		0.0%	0	1						
WBR	2		1	33.3%	3	5	1	2		66.7%	5	6						
WBU	0	0	0.0%	0	0	1	0	0.0%	0	1								
North Approach Volumes																		
Entering	881	Data not available	190	17.7%	478	2.5	1359	965	Data not available	162	14.4%	414	2.6	1379				
Exiting	651		171	20.8%	431	2.5	1082	935		117	11.1%	298	2.5	1233				
Total	1532		361	19.1%	909	2.5	2441	1900		279	12.8%	712	2.6	2612				
South Approach Volumes																		
Entering	604	Data not available	134	18.2%	337	2.5	941	790	Data not available	100	11.2%	256	2.6	1046				
Exiting	793		146	15.5%	363	2.5	1156	872		130	13.0%	331	2.5	1203				
Total	1397		280	16.7%	701	2.5	2098	1662		230	12.2%	585	2.5	2247				
West Approach Volumes																		
Entering	88	Data not available	65	42.5%	176	2.7	264	227	Data not available	47	17.2%	118	2.5	345				
Exiting	116		59	33.7%	171	2.9	287	165		38	18.7%	106	2.8	271				
Total	204		124	37.8%	347	2.8	551	392		85	17.8%	227	2.7	619				
East Approach Volumes																		
Entering	5	Data not available	6	54.5%	16	2.7	21	9	Data not available	2	18.2%	5	2.5	14				
Exiting	18		19	51.4%	55	2.9	73	19		26	57.8%	73	2.8	92				
Total	23		25	52.1%	70	2.8	93	28		28	50.0%	75	2.7	103				
Total Approach Volumes																		
Entering	1578	Data not available	395	20.0%	996	2.5	2574	1991	Data not available	311	13.5%	794	2.6	2785				
Exiting	1578		395	20.0%	996	2.5	2574	1991		311	13.5%	794	2.6	2785				
Total	3156		790	20.0%	1990	2.5	5146	3982		622	13.5%	1587	2.6	5569				

*PCE average taken from nearby intersection of S Riverside with Industrial Dr (#5 of this study)

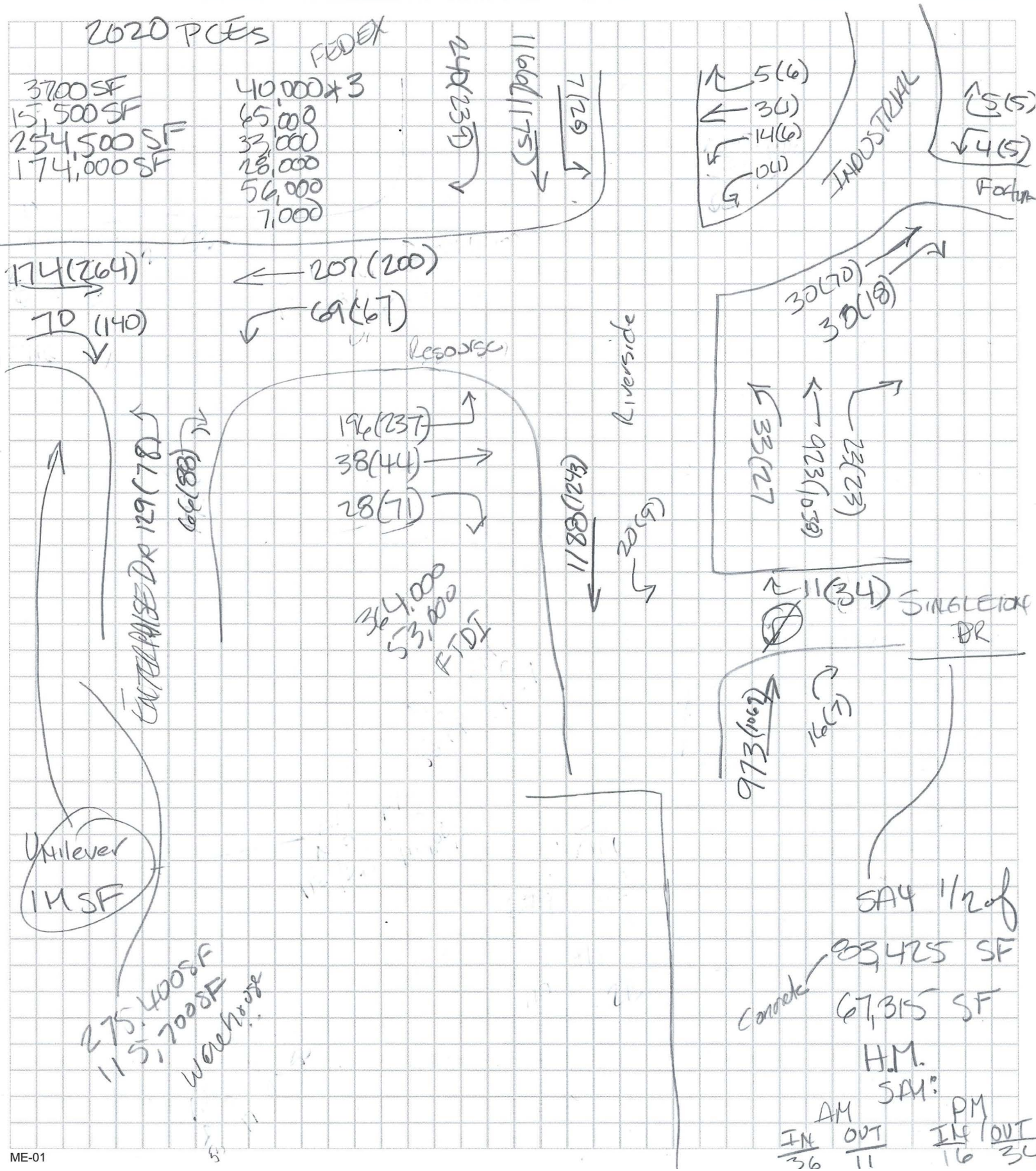
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Approach	AM Peak Hour (7:00-8:00am)									PM Peak Hour (5:00-6:00pm)								
	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume	Passenger Vehicles	Truck Volumes						Average PCE	Total PCE Volume
		2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE				2-axle 1.5	3-axle 2.0	4-axle 3.0	Total Trucks	Truck %	PCE		
SBL	23	4	3	5	12	34.3%	27	2.3	50	64	0	1	11	12	15.8%	35	2.9	99
SBT	731	17	10	34	61	7.7%	148	2.4	879	843	12	18	20	50	5.6%	114	2.3	957
SBR	66	6	5	20	31	32.0%	79	2.5	145	65	2	11	15	28	30.1%	70	2.5	135
SBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
NBL	76	10	1	8	19	20.0%	41	2.2	117	79	9	4	4	17	17.7%	34	2.0	113
NBT	514	30	7	24	61	10.6%	131	2.1	645	599	10	11	25	46	7.1%	112	2.4	711
NBR	8	8	3	3	14	63.6%	27	1.9	35	60	1	6	1	8	11.8%	17	2.1	77
NBU	7	0	0	0	0	0.0%	0	0.0	7	12	0	0	0	0	0.0%	0	0.0	12
EBL	81	6	5	12	23	22.1%	55	2.4	136	79	3	1	23	27	25.5%	76	2.8	155
EBT	73	5	3	2	10	12.0%	20	2.0	93	368	8	2	5	15	3.9%	31	2.1	399
EBR	42	6	4	5	15	26.3%	32	2.1	74	141	6	3	6	15	9.6%	33	2.2	174
EBU	0	0	0	0	0	0.0%	0	0.0	0	1	0	0	0	0	0.0%	0	0.0	1
WBL	69	5	7	1	13	15.9%	25	1.9	94	60	1	2	2	5	7.7%	12	2.4	72
WBT	222	5	4	12	21	8.6%	52	2.5	274	123	7	2	9	18	12.8%	42	2.3	165
WBR	22	4	7	12	23	51.1%	56	2.4	78	26	0	5	23	28	51.9%	79	2.8	105
WBU	0	0	0	0	0	0.0%	0	0.0	0	0	0	0	0	0	0.0%	0	0.0	0
North Approach Volumes																		
Entering	820	27	18	59	104	11.3%	254	2.4	1074	972	14	30	46	90	8.5%	219	2.4	1191
Exiting	617	40	19	48	107	14.8%	242	2.3	859	704	13	17	71	101	12.5%	267	2.6	971
Total	1437	67	37	107	211	12.8%	496	2.4	1933	1676	27	47	117	191	10.2%	486	2.5	2162
South Approach Volumes																		
Entering	605	48	11	35	94	13.4%	199	2.1	804	750	20	21	30	71	8.6%	162	2.3	912
Exiting	849	28	21	40	89	9.5%	204	2.3	1053	1056	19	23	28	70	6.2%	159	2.3	1215
Total	1454	76	32	75	183	11.2%	403	2.2	1857	1806	39	44	58	141	7.2%	321	2.3	2127
West Approach Volumes																		
Entering	196	17	12	19	48	19.7%	107	2.2	303	589	17	6	34	57	8.8%	140	2.5	729
Exiting	364	21	10	40	71	16.3%	172	2.4	536	268	18	17	28	63	19.0%	145	2.3	413
Total	560	38	22	59	119	17.5%	278	2.3	838	857	35	23	62	120	12.3%	285	2.4	1142
East Approach Volumes																		
Entering	313	14	18	25	57	15.4%	132	2.3	445	209	8	9	34	51	19.6%	132	2.6	341
Exiting	104	17	9	10	36	25.7%	74	2.1	178	492	9	9	17	35	6.6%	83	2.4	575
Total	417	31	27	35	93	18.2%	206	2.2	623	701	17	18	51	86	10.9%	215	2.5	916
Total Approach Volumes																		
Entering	1934	106	59	138	303	13.5%	691	2.3	2625	2520	59	66	144	269	9.6%	653	2.4	3173
Exiting	1934	106	59	138	303	13.5%	691	2.3	2625	2520	59	66	144	269	9.6%	653	2.4	3173
Total	3868	212	118	276	606	13.5%	1382	2.3	5250	5040	118	132	288	538	9.6%	1305	2.4	6345

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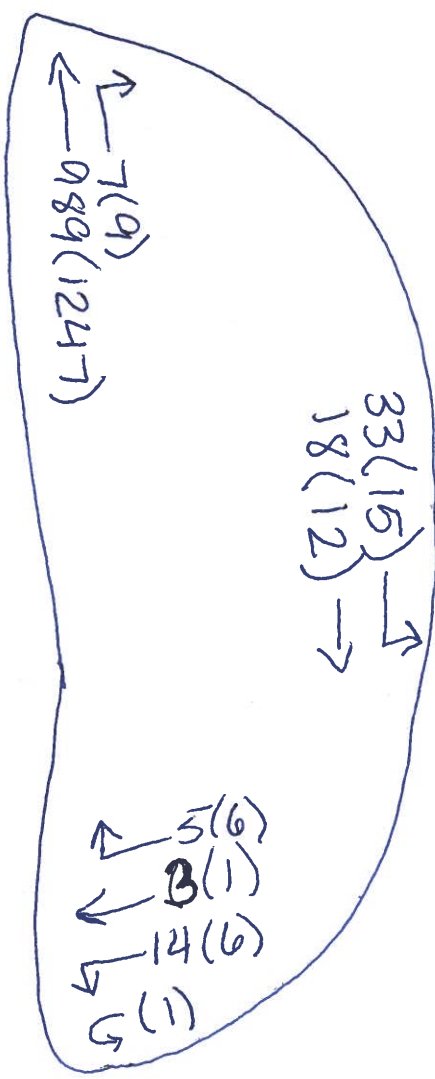
and point

↖ 5(5)
↘ 4(5)

Fortuna Way

↖ 38(18)
↘ 30(70)

↖ 23(23)
↘ 923(1038)
↙ 33(27)



S Riverside Avenue

44(35) ↘
1112(1624) →

7(20) →
1166(1175) →
240(239) →

Resource Drive

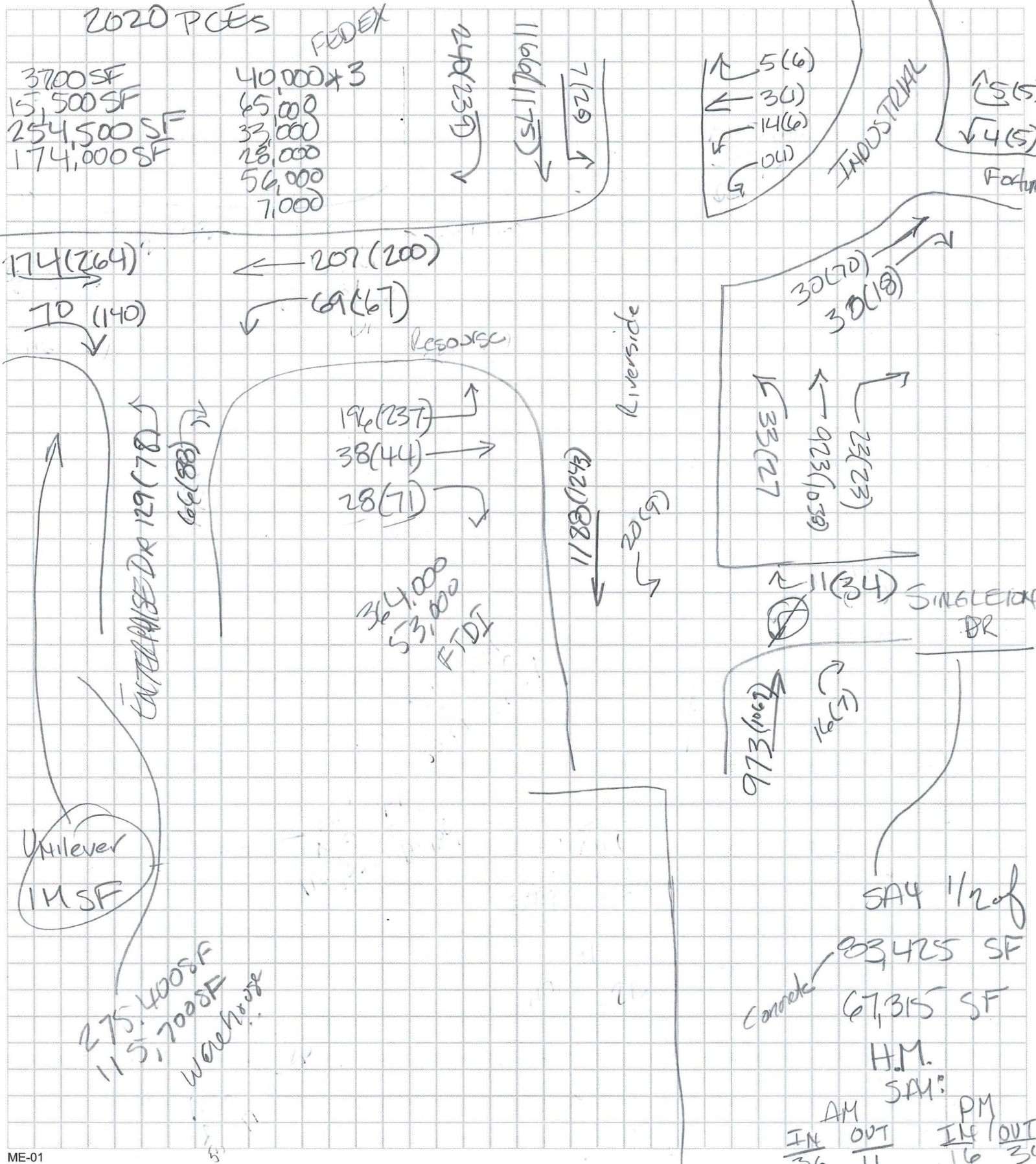
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Appendix F – Synchro Analysis Outputs

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Angelus Block Facility (Rialto, CA)

Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	185	548	179	170	37	357	628	160	62	1148	29
Future Volume (veh/h)	37	185	548	179	170	37	357	628	160	62	1148	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	201	596	195	185	40	388	683	174	67	1248	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	819	596	258	1075	480	503	1383	347	107	1304	33
Arrive On Green	0.07	0.23	0.23	0.14	0.30	0.30	0.15	0.34	0.34	0.06	0.25	0.25
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4069	1022	1781	5120	131
Grp Volume(v), veh/h	40	201	596	195	185	40	388	570	287	67	830	450
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1686	1781	1702	1847
Q Serve(g_s), s	1.8	3.8	19.0	8.7	3.2	1.5	8.9	10.9	11.2	3.0	19.8	19.8
Cycle Q Clear(g_c), s	1.8	3.8	19.0	8.7	3.2	1.5	8.9	10.9	11.2	3.0	19.8	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.61	1.00		0.07
Lane Grp Cap(c), veh/h	130	819	596	258	1075	480	503	1157	573	107	867	470
V/C Ratio(X)	0.31	0.25	1.00	0.75	0.17	0.08	0.77	0.49	0.50	0.62	0.96	0.96
Avail Cap(c_a), veh/h	410	819	596	410	1075	480	524	1157	573	205	867	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	25.9	25.7	33.8	21.2	20.6	33.9	21.6	21.6	37.8	30.3	30.3
Incr Delay (d2), s/veh	1.3	0.2	36.9	4.5	0.1	0.1	6.7	1.5	3.1	5.8	21.8	32.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.5	16.6	3.9	1.2	0.5	4.0	4.3	4.6	1.4	10.2	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	26.0	62.6	38.3	21.2	20.6	40.6	23.1	24.8	43.7	52.1	62.4
LnGrp LOS	D	C	F	D	C	C	D	C	C	D	D	E
Approach Vol, veh/h	837			420			1245			1347		
Approach Delay, s/veh	52.6			29.1			28.9			55.1		
Approach LOS	D			C			C			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	33.0	17.0	24.0	15.5	26.0	11.0	30.0				
Change Period (Y+Rc), s	4.5	6.0	6.0	6.0	4.5	6.0	6.0	6.0				
Max Green Setting (Gmax), s	8.5	23.0	18.0	18.0	11.5	20.0	18.0	18.0				
Max Q Clear Time (g_c+I1), s	5.0	13.2	10.7	21.0	10.9	21.8	3.8	5.2				
Green Ext Time (p_c), s	0.0	3.7	0.3	0.0	0.1	0.0	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	43.3											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary

2: S Riverside Ave & I-10 WB ramps

Angelus Block Facility (Rialto, CA)

Existing AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	546	5	375	316	920	0	0	1059	555
Future Volume (veh/h)	0	0	0	546	5	375	316	920	0	0	1059	555
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				1737	1737	1737	1678	1678	0	0	1870	1870
Adj Flow Rate, veh/h				678	0	257	322	939	0	0	1081	566
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				11	11	11	15	15	0	0	2	2
Cap, veh/h				878	0	391	440	2794	0	0	2612	643
Arrive On Green				0.27	0.00	0.27	0.14	0.61	0.00	0.00	0.41	0.41
Sat Flow, veh/h				3309	0	1472	3100	4731	0	0	6696	1585
Grp Volume(v), veh/h				678	0	257	322	939	0	0	1081	566
Grp Sat Flow(s),veh/h/ln				1654	0	1472	1550	1527	0	0	1609	1585
Q Serve(g_s), s				15.2	0.0	12.5	8.0	8.1	0.0	0.0	9.6	26.5
Cycle Q Clear(g_c), s				15.2	0.0	12.5	8.0	8.1	0.0	0.0	9.6	26.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				878	0	391	440	2794	0	0	2612	643
V/C Ratio(X)				0.77	0.00	0.66	0.73	0.34	0.00	0.00	0.41	0.88
Avail Cap(c_a), veh/h				1277	0	568	579	2794	0	0	2612	643
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				27.3	0.0	26.3	33.0	7.7	0.0	0.0	17.0	22.0
Incr Delay (d2), s/veh				1.8	0.0	1.9	3.3	0.3	0.0	0.0	0.5	15.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.0	0.0	4.4	2.9	1.9	0.0	0.0	3.1	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.1	0.0	28.1	36.3	8.0	0.0	0.0	17.5	37.9
LnGrp LOS				C	A	C	D	A	A	A	B	D
Approach Vol, veh/h					935			1261			1647	
Approach Delay, s/veh					28.8			15.2			24.5	
Approach LOS					C			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		54.0			16.4	37.6		26.3				
Change Period (Y+Rc), s		6.0			6.0	6.0		6.0				
Max Green Setting (Gmax), s		48.0			14.0	28.0		30.0				
Max Q Clear Time (g_c+I1), s		10.1			10.0	28.5		17.2				
Green Ext Time (p_c), s		6.7			0.4	0.0		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				22.5								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

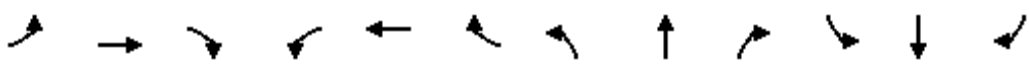
HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Angelus Block Facility (Rialto, CA)
Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	8	469	0	0	0	0	897	402	399	1209	0
Future Volume (veh/h)	336	8	469	0	0	0	0	897	402	399	1209	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	1693	1693	1693				0	1574	1574	1796	1796	0
Adj Flow Rate, veh/h	538	0	312				0	954	428	424	1286	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	14	14	14				0	22	22	7	7	0
Cap, veh/h	856	0	381				0	1143	512	541	2102	0
Arrive On Green	0.27	0.00	0.27				0.00	0.39	0.39	0.16	0.62	0.00
Sat Flow, veh/h	3224	0	1434				0	3044	1302	3319	3503	0
Grp Volume(v), veh/h	538	0	312				0	942	440	424	1286	0
Grp Sat Flow(s),veh/h/ln	1612	0	1434				0	1432	1340	1659	1706	0
Q Serve(g_s), s	12.4	0.0	17.2				0.0	25.1	25.1	10.3	19.6	0.0
Cycle Q Clear(g_c), s	12.4	0.0	17.2				0.0	25.1	25.1	10.3	19.6	0.0
Prop In Lane	1.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	856	0	381				0	1128	527	541	2102	0
V/C Ratio(X)	0.63	0.00	0.82				0.00	0.83	0.84	0.78	0.61	0.00
Avail Cap(c_a), veh/h	1069	0	476				0	1128	527	629	2102	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	27.3	0.0	29.1				0.0	23.1	23.1	33.9	10.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	8.9				0.0	7.3	14.5	5.6	1.3	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	4.7	0.0	6.7				0.0	8.3	8.8	4.2	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.1	0.0	38.0				0.0	30.5	37.6	39.4	11.3	0.0
LnGrp LOS	C	A	D				A	C	D	D	B	A
Approach Vol, veh/h	850						1382			1710		
Approach Delay, s/veh	31.7						32.7			18.3		
Approach LOS	C						C			B		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	18.8	38.2		27.4			57.0					
Change Period (Y+Rc), s	6.0	6.0		6.0			6.0					
Max Green Setting (Gmax), s	15.0	30.0		27.0			51.0					
Max Q Clear Time (g_c+I1), s	12.3	27.1		19.2			21.6					
Green Ext Time (p_c), s	0.4	2.1		2.2			9.8					
Intersection Summary												
HCM 6th Ctrl Delay	26.3											
HCM 6th LOS	C											
Notes												

HCM 6th Signalized Intersection Summary 4: S Riverside Ave & Slover Ave

Angelus Block Facility (Rialto, CA)
Existing AM

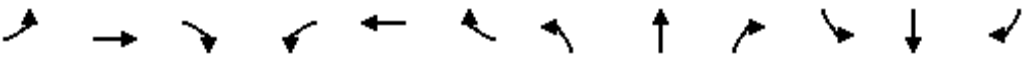
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	20	71	29	28	30	84	945	28	37	1200	429
Future Volume (veh/h)	256	20	71	29	28	30	84	945	28	37	1200	429
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1693	1693	1693	1455	1455	1455	1500	1500	1500	1722	1722	1722
Adj Flow Rate, veh/h	272	21	76	31	30	32	89	1005	30	39	1277	456
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, %	14	14	14	30	30	30	27	27	27	12	12	12
Cap, veh/h	324	376	319	295	307	274	95	1597	48	75	1300	448
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	0.57	0.57	0.05	0.54	0.54
Sat Flow, veh/h	1213	1693	1434	1010	1383	1233	1428	2825	84	1640	2388	822
Grp Volume(v), veh/h	272	21	76	31	30	32	89	507	528	39	860	873
Grp Sat Flow(s),veh/h/ln	1213	1693	1434	1010	1383	1233	1428	1425	1485	1640	1636	1574
Q Serve(g_s), s	18.1	0.9	3.9	2.2	1.6	1.9	5.6	21.6	21.6	2.1	45.4	49.0
Cycle Q Clear(g_c), s	20.0	0.9	3.9	3.1	1.6	1.9	5.6	21.6	21.6	2.1	45.4	49.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		0.52
Lane Grp Cap(c), veh/h	324	376	319	295	307	274	95	806	839	75	891	857
V/C Ratio(X)	0.84	0.06	0.24	0.11	0.10	0.12	0.93	0.63	0.63	0.52	0.97	1.02
Avail Cap(c_a), veh/h	324	376	319	295	307	274	95	806	839	109	891	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	27.6	28.7	28.8	27.8	27.9	41.8	13.2	13.2	42.0	19.7	20.5
Incr Delay (d2), s/veh	17.4	0.1	0.4	0.2	0.1	0.2	71.0	1.6	1.5	5.5	22.1	35.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.3	1.3	0.5	0.5	0.5	3.7	5.7	6.0	0.9	18.8	22.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	27.6	29.1	28.9	28.0	28.1	112.8	14.8	14.7	47.5	41.7	56.0
LnGrp LOS	D	C	C	C	C	C	F	B	B	D	D	F
Approach Vol, veh/h	369			93			1124			1772		
Approach Delay, s/veh	47.5			28.4			22.5			48.9		
Approach LOS	D			C			C			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	55.9		25.0	11.0	54.0		25.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	5.0	48.0		19.0	5.0	48.0		19.0				
Max Q Clear Time (g_c+I1), s	4.1	23.6		22.0	7.6	51.0		5.1				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	0.0		0.3				
Intersection Summary												
HCM 6th Ctrl Delay	39.3											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary

5: S Riverside Ave & Santa Ana Ave

Angelus Block Facility (Rialto, CA)

Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	65	53	60	34	48	84	85	931	32	62	1088	127
Future Volume (veh/h)	65	53	60	34	48	84	85	931	32	62	1088	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1411	1411	1411	625	625	625	1574	1574	1574	1678	1678	1678
Adj Flow Rate, veh/h	71	58	65	37	52	91	92	1012	35	67	1183	138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	33	33	33	86	86	86	22	22	22	15	15	15
Cap, veh/h	134	95	81	172	143	121	132	1470	51	104	1367	159
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.09	0.50	0.50	0.06	0.48	0.48
Sat Flow, veh/h	288	413	353	424	625	530	1499	2949	102	1598	2877	335
Grp Volume(v), veh/h	194	0	0	37	52	91	92	513	534	67	654	667
Grp Sat Flow(s),veh/h/ln	1054	0	0	424	625	530	1499	1495	1556	1598	1594	1617
Q Serve(g_s), s	7.9	0.0	0.0	0.0	5.1	11.6	4.3	18.9	18.9	3.0	26.4	26.6
Cycle Q Clear(g_c), s	12.9	0.0	0.0	8.3	5.1	11.6	4.3	18.9	18.9	3.0	26.4	26.6
Prop In Lane	0.37		0.34	1.00		1.00	1.00		0.07	1.00		0.21
Lane Grp Cap(c), veh/h	310	0	0	172	143	121	132	745	775	104	758	769
V/C Ratio(X)	0.63	0.00	0.00	0.22	0.36	0.75	0.70	0.69	0.69	0.65	0.86	0.87
Avail Cap(c_a), veh/h	442	0	0	221	216	183	249	827	861	221	838	850
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	0.0	0.0	24.7	23.4	25.9	32.0	13.8	13.8	33.0	16.9	16.9
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.6	1.5	8.9	6.4	2.1	2.0	6.5	8.6	8.8
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	3.1	0.0	0.0	0.5	0.7	1.6	1.6	5.2	5.4	1.2	9.1	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	0.0	25.3	25.0	34.8	38.5	16.0	15.9	39.5	25.5	25.8
LnGrp LOS	C	A	A	C	C	C	D	B	B	D	C	C
Approach Vol, veh/h		194			180			1139			1388	
Approach Delay, s/veh		28.6			30.0			17.8			26.3	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	41.0		21.6	11.4	39.4		21.6				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	39.0		24.0	11.0	37.0		24.0				
Max Q Clear Time (g_c+I1), s	5.0	20.9		14.9	6.3	28.6		13.6				
Green Ext Time (p_c), s	0.0	5.7		0.7	0.1	4.7		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			23.3									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	35	989	7	44	1112
Future Vol, veh/h	0	35	989	7	44	1112
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	59	59	20	20	15	15
Mvmt Flow	0	38	1063	8	47	1196
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1759	536	0	0	1071	0
Stage 1	1067	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Critical Hdwy	7.98	8.08	-	-	4.4	-
Critical Hdwy Stg 1	6.98	-	-	-	-	-
Critical Hdwy Stg 2	6.98	-	-	-	-	-
Follow-up Hdwy	4.09	3.89	-	-	2.35	-
Pot Cap-1 Maneuver	41	366	-	-	575	-
Stage 1	192	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	38	366	-	-	575	-
Mov Cap-2 Maneuver	124	-	-	-	-	-
Stage 1	192	-	-	-	-	-
Stage 2	305	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	16	0		0.4		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	366	575	-	
HCM Lane V/C Ratio	-	-	0.103	0.082	-	
HCM Control Delay (s)	-	-	16	11.8	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	0.3	0.3	-	

HCM 6th Signalized Intersection Summary
7: S Riverside Ave & Jurupa Ave

Angelus Block Facility (Rialto, CA)
Existing AM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	57	136	75	965	1090	42
Future Volume (veh/h)	57	136	75	965	1090	42
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	146	81	1038	1172	45
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	232	206	126	2713	2199	84
Arrive On Green	0.13	0.13	0.07	0.76	0.63	0.63
Sat Flow, veh/h	1781	1585	1781	3647	3583	134
Grp Volume(v), veh/h	61	146	81	1038	597	620
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1846
Q Serve(g_s), s	2.5	7.1	3.5	7.8	14.9	14.9
Cycle Q Clear(g_c), s	2.5	7.1	3.5	7.8	14.9	14.9
Prop In Lane	1.00	1.00	1.00			0.07
Lane Grp Cap(c), veh/h	232	206	126	2713	1120	1164
V/C Ratio(X)	0.26	0.71	0.64	0.38	0.53	0.53
Avail Cap(c_a), veh/h	457	407	201	2713	1120	1164
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	33.3	36.1	3.2	8.2	8.2
Incr Delay (d2), s/veh	0.6	4.4	5.4	0.4	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	6.3	1.6	1.1	4.3	4.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.9	37.7	41.5	3.6	10.0	10.0
LnGrp LOS	C	D	D	A	B	A
Approach Vol, veh/h	207			1119	1217	
Approach Delay, s/veh	36.0			6.3	10.0	
Approach LOS	D			A	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	66.0			13.9	10.6	55.4
Change Period (Y+Rc), s	6.0			4.5	6.0	6.0
Max Green Setting (Gmax), s	60.0			19.5	8.0	46.0
Max Q Clear Time (g_c+I1), s	9.8			9.1	5.5	16.9
Green Ext Time (p_c), s	7.8			0.4	0.0	8.0
Intersection Summary						
HCM 6th Ctrl Delay			10.5			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary 8: S Riverside Ave & Resource Dr/Industrial Dr

Angelus Block Facility (Rialto, CA)
Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	38	28	14	3	5	33	923	23	8	1166	240
Future Volume (veh/h)	196	38	28	14	3	5	33	923	23	8	1166	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1337	1337	1337	1085	1085	1085	1633	1633	1633	1633	1633	1633
Adj Flow Rate, veh/h	218	42	31	16	3	6	37	1026	26	9	1296	267
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	38	38	38	55	55	55	18	18	18	18	18	18
Cap, veh/h	306	176	130	155	27	42	59	1885	48	30	1518	309
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.04	0.61	0.61	0.02	0.59	0.59
Sat Flow, veh/h	1005	715	527	430	111	171	1555	3092	78	1555	2568	522
Grp Volume(v), veh/h	218	0	73	25	0	0	37	515	537	9	776	787
Grp Sat Flow(s),veh/h/ln	1005	0	1242	712	0	0	1555	1552	1619	1555	1552	1539
Q Serve(g_s), s	18.1	0.0	5.6	1.5	0.0	0.0	2.8	23.3	23.3	0.7	49.1	51.3
Cycle Q Clear(g_c), s	25.2	0.0	5.6	7.2	0.0	0.0	2.8	23.3	23.3	0.7	49.1	51.3
Prop In Lane	1.00		0.42	0.64		0.24	1.00		0.05	1.00		0.34
Lane Grp Cap(c), veh/h	306	0	306	224	0	0	59	946	987	30	917	910
V/C Ratio(X)	0.71	0.00	0.24	0.11	0.00	0.00	0.63	0.54	0.54	0.30	0.85	0.86
Avail Cap(c_a), veh/h	410	0	435	311	0	0	91	946	987	78	917	910
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)	0.97	0.00	0.97	1.00	0.00	0.00	0.93	0.93	0.93	0.83	0.83	0.83
Uniform Delay (d), s/veh	43.7	0.0	36.2	36.8	0.0	0.0	56.9	13.7	13.7	58.1	20.1	20.5
Incr Delay (d2), s/veh	3.6	0.0	0.4	0.2	0.0	0.0	9.8	2.1	2.0	4.6	8.1	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	1.8	0.6	0.0	0.0	1.2	7.5	7.8	0.3	17.0	17.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	0.0	36.6	37.0	0.0	0.0	66.7	15.8	15.7	62.7	28.1	29.7
LnGrp LOS	D	A	D	D	A	A	E	B	B	E	C	C
Approach Vol, veh/h		291			25			1089			1572	
Approach Delay, s/veh		44.6			37.0			17.5			29.1	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	78.2		34.5	9.5	75.9		34.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	5.0	56.0		41.0	6.0	55.0		41.0				
Max Q Clear Time (g_c+I1), s	2.7	25.3		27.2	4.8	53.3		9.2				
Green Ext Time (p_c), s	0.0	6.7		1.3	0.0	1.3		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			26.4									
HCM 6th LOS			C									

HCM 6th TWSC
9: S Riverside Ave & Singleton Ave

Angelus Block Facility (Rialto, CA)
Existing AM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	11	973	16	20	1188
Future Vol, veh/h	0	11	973	16	20	1188
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	12	1081	18	22	1320
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	550	0	0	1099	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	479	-	-	631	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	479	-	-	631	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.7	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 479		631	-	
HCM Lane V/C Ratio	-	- 0.026		0.035	-	
HCM Control Delay (s)	-	- 12.7		10.9	-	
HCM Lane LOS	-	- B		B	-	
HCM 95th %tile Q(veh)	-	- 0.1		0.1	-	

HCM 6th Signalized Intersection Summary 10: S Riverside Ave & Agua Mansa Rd

Angelus Block Facility (Rialto, CA)
Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	95	75	96	279	80	126	658	36	51	897	148
Future Volume (veh/h)	139	95	75	96	279	80	126	658	36	51	897	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1604	1604	1604	1678	1678	1678	1693	1693	1693	1737	1737	1737
Adj Flow Rate, veh/h	148	101	80	102	297	85	134	700	38	54	954	157
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, %	20	20	20	15	15	15	14	14	14	11	11	11
Cap, veh/h	183	292	247	137	362	102	170	1604	87	80	1519	677
Arrive On Green	0.12	0.18	0.18	0.09	0.15	0.15	0.11	0.52	0.52	0.10	0.92	0.92
Sat Flow, veh/h	1527	1604	1359	1598	2457	691	1612	3102	168	1654	3300	1472
Grp Volume(v), veh/h	148	101	80	102	191	191	134	363	375	54	954	157
Grp Sat Flow(s),veh/h/ln	1527	1604	1359	1598	1594	1553	1612	1608	1662	1654	1650	1472
Q Serve(g_s), s	11.3	6.6	6.1	7.5	13.9	14.4	9.7	16.9	16.9	3.8	6.6	1.3
Cycle Q Clear(g_c), s	11.3	6.6	6.1	7.5	13.9	14.4	9.7	16.9	16.9	3.8	6.6	1.3
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	183	292	247	137	235	229	170	832	860	80	1519	677
V/C Ratio(X)	0.81	0.35	0.32	0.75	0.81	0.83	0.79	0.44	0.44	0.67	0.63	0.23
Avail Cap(c_a), veh/h	255	307	260	213	252	246	215	832	860	124	1519	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	51.5	42.8	42.7	53.6	49.5	49.7	52.3	18.1	18.1	53.2	2.8	2.6
Incr Delay (d2), s/veh	12.4	0.7	0.7	7.9	17.0	20.2	13.9	1.7	1.6	9.3	2.0	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	4.9	2.6	2.1	3.2	6.5	6.7	4.4	6.0	6.2	1.7	1.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.8	43.5	43.4	61.5	66.5	70.0	66.3	19.7	19.7	62.5	4.8	3.4
LnGrp LOS	E	D	D	E	E	E	E	B	B	E	A	A
Approach Vol, veh/h		329			484			872			1165	
Approach Delay, s/veh		52.6			66.8			26.9			7.3	
Approach LOS		D			E			C			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	67.1	15.3	26.8	17.7	60.2	19.4	22.7				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	8.0	51.0	15.0	22.0	15.0	44.0	19.0	18.0				
Max Q Clear Time (g_c+I1), s	5.8	18.9	9.5	8.6	11.7	8.6	13.3	16.4				
Green Ext Time (p_c), s	0.0	4.2	0.1	0.5	0.1	7.4	0.2	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			28.6									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	5	30	38	33	18
Future Vol, veh/h	4	5	30	38	33	18
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	90	90	90	90	90	90
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	4	6	33	42	37	20
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	148	54	0	0	75	0
Stage 1	54	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	744	893	-	-	1269	-
Stage 1	859	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	722	893	-	-	1269	-
Mov Cap-2 Maneuver	722	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		5.1		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	808		1269	-	
HCM Lane V/C Ratio	-	0.012		0.029	-	
HCM Control Delay (s)	-	9.5		7.9	0	
HCM Lane LOS	-	A		A	A	
HCM 95th %tile Q(veh)	-	0		0.1	-	

Intersection						
Int Delay, s/veh	4.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	174	70	69	207	129	66
Future Vol, veh/h	174	70	69	207	129	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	193	78	77	230	143	73
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	271	0	616	232
Stage 1	-	-	-	-	232	-
Stage 2	-	-	-	-	384	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1292	-	454	807
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	688	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1292	-	427	807
Mov Cap-2 Maneuver	-	-	-	-	517	-
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	647	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		13	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	517	807	-	-	1292	-
HCM Lane V/C Ratio	0.277	0.091	-	-	0.059	-
HCM Control Delay (s)	14.6	9.9	-	-	8	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1.1	0.3	-	-	0.2	-

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Anglus Block Facility (Rialto, CA)

Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	253	476	186	294	126	567	1259	196	82	786	59
Future Volume (veh/h)	94	253	476	186	294	126	567	1259	196	82	786	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	261	491	192	303	130	585	1298	202	85	810	61
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	686	568	259	874	390	572	1487	231	131	1171	88
Arrive On Green	0.09	0.19	0.19	0.15	0.25	0.25	0.17	0.33	0.33	0.07	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4456	693	1781	4846	363
Grp Volume(v), veh/h	97	261	491	192	303	130	585	992	508	85	568	303
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1746	1781	1702	1805
Q Serve(g_s), s	4.1	5.0	10.3	8.1	5.5	5.3	13.0	21.5	21.5	3.6	11.9	12.0
Cycle Q Clear(g_c), s	4.1	5.0	10.3	8.1	5.5	5.3	13.0	21.5	21.5	3.6	11.9	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		0.20
Lane Grp Cap(c), veh/h	165	686	568	259	874	390	572	1136	583	131	823	436
V/C Ratio(X)	0.59	0.38	0.86	0.74	0.35	0.33	1.02	0.87	0.87	0.65	0.69	0.69
Avail Cap(c_a), veh/h	431	859	645	431	874	390	572	1136	583	136	823	436
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	34.2	27.6	7.1	32.2	24.4	24.3	32.8	24.6	24.6	35.4	27.1	27.2
Incr Delay (d2), s/veh	3.3	0.3	10.7	4.2	0.2	0.5	43.8	9.3	16.5	9.9	4.7	8.8
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	1.9	2.1	4.2	3.7	2.3	2.0	8.7	9.6	11.0	1.9	5.2	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	28.0	17.8	36.3	24.7	24.8	76.6	34.0	41.1	45.4	31.8	36.0
LnGrp LOS	D	C	B	D	C	C	F	C	D	D	C	D
Approach Vol, veh/h	849			625			2085			956		
Approach Delay, s/veh	23.2			28.3			47.6			34.4		
Approach LOS	C			C			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	31.2	16.4	20.2	18.0	24.0	12.3	24.3				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	25.0	18.0	18.0	12.0	18.0	18.0	18.0				
Max Q Clear Time (g_c+I1), s	5.6	23.5	10.1	12.3	15.0	14.0	6.1	7.5				
Green Ext Time (p_c), s	0.0	1.2	0.3	1.9	0.0	2.0	0.2	1.7				

Intersection Summary

HCM 6th Ctrl Delay 37.6

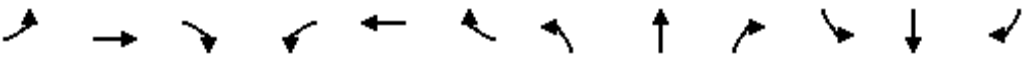
HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary 2: S Riverside Ave & I-10 WB ramps

Anglus Block Facility (Rialto, CA)
Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↷	↰	↰	↰			↷	↰
Traffic Volume (veh/h)	0	0	0	625	3	501	313	1579	0	0	1150	402
Future Volume (veh/h)	0	0	0	625	3	501	313	1579	0	0	1150	402
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				1752	1752	1752	1841	1841	0	0	1856	1856
Adj Flow Rate, veh/h				815	0	349	326	1645	0	0	1198	419
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				10	10	10	4	4	0	0	3	3
Cap, veh/h				1056	0	470	461	2786	0	0	2263	557
Arrive On Green				0.32	0.00	0.32	0.14	0.55	0.00	0.00	0.35	0.35
Sat Flow, veh/h				3337	0	1485	3401	5191	0	0	6643	1572
Grp Volume(v), veh/h				815	0	349	326	1645	0	0	1198	419
Grp Sat Flow(s),veh/h/ln				1668	0	1485	1700	1675	0	0	1596	1572
Q Serve(g_s), s				17.1	0.0	16.3	7.1	16.8	0.0	0.0	11.6	18.2
Cycle Q Clear(g_c), s				17.1	0.0	16.3	7.1	16.8	0.0	0.0	11.6	18.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1056	0	470	461	2786	0	0	2263	557
V/C Ratio(X)				0.77	0.00	0.74	0.71	0.59	0.00	0.00	0.53	0.75
Avail Cap(c_a), veh/h				1592	0	708	614	2786	0	0	2263	557
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				24.0	0.0	23.7	32.1	11.4	0.0	0.0	19.9	22.0
Incr Delay (d2), s/veh				1.3	0.0	2.3	2.5	0.9	0.0	0.0	0.9	9.0
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				6.6	0.0	5.7	2.8	4.8	0.0	0.0	3.8	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.3	0.0	26.0	34.5	12.4	0.0	0.0	20.8	31.1
LnGrp LOS				C	A	C	C	B	A	A	C	C
Approach Vol, veh/h					1164			1971			1617	
Approach Delay, s/veh					25.5			16.0			23.4	
Approach LOS					C			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		48.0			15.5	32.5		29.5				
Change Period (Y+Rc), s		6.0			6.0	6.0		6.0				
Max Green Setting (Gmax), s		42.0			13.0	23.0		36.0				
Max Q Clear Time (g_c+I1), s		18.8			9.1	20.2		19.1				
Green Ext Time (p_c), s		11.7			0.4	2.1		4.4				
Intersection Summary												
HCM 6th Ctrl Delay				20.9								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)

Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  		 		
Traffic Volume (veh/h)	594	0	445	0	0	0	0	1321	620	462	1337	0
Future Volume (veh/h)	594	0	445	0	0	0	0	1321	620	462	1337	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	1767	1767	1767				0	1781	1781	1796	1796	0
Adj Flow Rate, veh/h	755	0	306				0	1362	639	476	1378	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	9	9	9				0	8	8	7	7	0
Cap, veh/h	823	0	366				0	1412	649	516	2199	0
Arrive On Green	0.24	0.00	0.24				0.00	0.43	0.43	0.16	0.64	0.00
Sat Flow, veh/h	3365	0	1497				0	3418	1497	3319	3503	0
Grp Volume(v), veh/h	755	0	306				0	1355	646	476	1378	0
Grp Sat Flow(s),veh/h/ln	1682	0	1497				0	1621	1512	1659	1706	0
Q Serve(g_s), s	19.7	0.0	17.5				0.0	36.6	38.0	12.7	21.7	0.0
Cycle Q Clear(g_c), s	19.7	0.0	17.5				0.0	36.6	38.0	12.7	21.7	0.0
Prop In Lane	1.00		1.00				0.00		0.99	1.00		0.00
Lane Grp Cap(c), veh/h	823	0	366				0	1405	655	516	2199	0
V/C Ratio(X)	0.92	0.00	0.84				0.00	0.96	0.99	0.92	0.63	0.00
Avail Cap(c_a), veh/h	823	0	366				0	1405	655	516	2199	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	33.1	0.0	32.3				0.0	24.8	25.2	37.5	9.5	0.0
Incr Delay (d2), s/veh	15.1	0.0	15.4				0.0	17.0	31.7	22.2	1.4	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	9.5	0.0	7.7				0.0	15.1	17.2	6.3	6.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	0.0	47.7				0.0	41.8	57.0	59.6	10.9	0.0
LnGrp LOS	D	A	D				A	D	E	E	B	A
Approach Vol, veh/h	1061						2001			1854		
Approach Delay, s/veh	48.1						46.7			23.4		
Approach LOS	D						D			C		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	19.0	44.0	27.0		63.0							
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0							
Max Green Setting (Gmax), s	13.0	38.0	21.0		57.0							
Max Q Clear Time (g_c+I1), s	14.7	40.0	21.7		23.7							
Green Ext Time (p_c), s	0.0	0.0	0.0		11.3							
Intersection Summary												
HCM 6th Ctrl Delay	38.2											
HCM 6th LOS	D											
Notes												

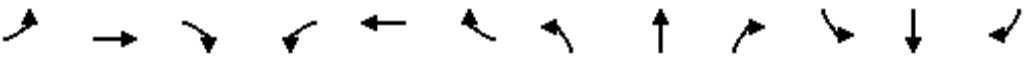
HCM 6th Signalized Intersection Summary 4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	414	119	149	33	30	73	35	1394	22	27	1465	286
Future Volume (veh/h)	414	119	149	33	30	73	35	1394	22	27	1465	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1796	1796	1796	1411	1411	1411	1767	1767	1767	1707	1707	1707
Adj Flow Rate, veh/h	440	127	159	35	32	78	37	1483	23	29	1559	304
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, %	7	7	7	33	33	33	9	9	9	13	13	13
Cap, veh/h	385	531	450	281	396	353	76	1670	26	65	1330	252
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.05	0.49	0.49	0.04	0.49	0.49
Sat Flow, veh/h	1232	1796	1522	825	1340	1196	1682	3383	52	1626	2720	516
Grp Volume(v), veh/h	440	127	159	35	32	78	37	735	771	29	912	951
Grp Sat Flow(s),veh/h/ln	1232	1796	1522	825	1340	1196	1682	1678	1757	1626	1622	1614
Q Serve(g_s), s	21.7	4.7	7.2	3.0	1.5	4.3	1.9	34.7	34.8	1.5	43.0	43.0
Cycle Q Clear(g_c), s	26.0	4.7	7.2	7.7	1.5	4.3	1.9	34.7	34.8	1.5	43.0	43.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.32
Lane Grp Cap(c), veh/h	385	531	450	281	396	353	76	829	868	65	793	789
V/C Ratio(X)	1.14	0.24	0.35	0.12	0.08	0.22	0.49	0.89	0.89	0.44	1.15	1.21
Avail Cap(c_a), veh/h	385	531	450	281	396	353	115	829	868	111	793	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	23.5	24.4	26.4	22.4	23.4	41.0	20.1	20.1	41.3	22.5	22.5
Incr Delay (d2), s/veh	90.2	0.2	0.5	0.2	0.1	0.3	4.8	11.5	11.2	4.7	82.0	104.2
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	17.7	1.9	2.5	0.6	0.5	1.2	0.8	13.6	14.2	0.7	31.2	35.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	125.7	23.7	24.8	26.6	22.4	23.7	45.8	31.5	31.3	45.9	104.5	126.7
LnGrp LOS	F	C	C	C	C	C	D	C	C	D	F	F
Approach Vol, veh/h	726			145			1543			1892		
Approach Delay, s/veh	85.8			24.1			31.7			114.8		
Approach LOS	F			C			C			F		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.5	48.4	31.0		9.0	48.0	31.0					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	42.0	25.0		5.0	42.0	25.0					
Max Q Clear Time (g_c+I1), s	3.5	36.8	28.0		3.9	45.0	9.7					
Green Ext Time (p_c), s	0.0	3.6	0.0		0.0	0.0	0.6					
Intersection Summary												
HCM 6th Ctrl Delay	77.1											
HCM 6th LOS	E											

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	107	15	94	38	19	65	85	1251	19	55	1506	78
Future Volume (veh/h)	107	15	94	38	19	65	85	1251	19	55	1506	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1633	1633	1633	1752	1752	1752	1707	1707	1707
Adj Flow Rate, veh/h	115	16	101	41	20	70	91	1345	20	59	1619	84
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	13	13	13	18	18	18	10	10	10	13	13	13
Cap, veh/h	192	32	122	282	342	290	134	1845	27	93	1653	85
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.08	0.55	0.55	0.06	0.53	0.53
Sat Flow, veh/h	604	154	584	1113	1633	1384	1668	3357	50	1626	3138	162
Grp Volume(v), veh/h	232	0	0	41	20	70	91	666	699	59	833	870
Grp Sat Flow(s),veh/h/ln	1342	0	0	1113	1633	1384	1668	1664	1743	1626	1622	1678
Q Serve(g_s), s	12.1	0.0	0.0	0.0	0.8	3.4	4.3	24.6	24.6	2.9	40.8	41.6
Cycle Q Clear(g_c), s	13.4	0.0	0.0	3.2	0.8	3.4	4.3	24.6	24.6	2.9	40.8	41.6
Prop In Lane	0.50		0.44	1.00		1.00	1.00		0.03	1.00		0.10
Lane Grp Cap(c), veh/h	347	0	0	282	342	290	134	915	958	93	854	884
V/C Ratio(X)	0.67	0.00	0.00	0.15	0.06	0.24	0.68	0.73	0.73	0.63	0.97	0.98
Avail Cap(c_a), veh/h	443	0	0	363	460	390	184	915	958	159	854	884
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	0.00	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	0.0	26.8	25.8	26.9	36.5	13.8	13.8	37.6	18.8	19.0
Incr Delay (d2), s/veh	2.6	0.0	0.0	0.2	0.1	0.4	5.9	3.0	2.8	6.9	24.7	26.3
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	4.3	0.0	0.0	0.6	0.3	1.1	1.8	7.6	8.0	1.2	17.4	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	0.0	0.0	27.0	25.9	27.3	42.4	16.8	16.7	44.5	43.4	45.3
LnGrp LOS	C	A	A	C	C	C	D	B	B	D	D	D
Approach Vol, veh/h		232			131			1456			1762	
Approach Delay, s/veh		33.3			27.0			18.3			44.4	
Approach LOS		C			C			B			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	49.9		22.1	11.5	48.0		22.1				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	7.0	43.0		22.0	8.0	42.0		22.0				
Max Q Clear Time (g_c+I1), s	4.9	26.6		15.4	6.3	43.6		5.4				
Green Ext Time (p_c), s	0.0	7.5		0.7	0.0	0.0		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			32.4									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	35	1247	9	36	1629
Future Vol, veh/h	3	35	1247	9	36	1629
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	32	32	9	9	12	12
Mvmt Flow	3	38	1355	10	39	1771
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2324	683	0	0	1365	0
Stage 1	1360	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Critical Hdwy	7.44	7.54	-	-	4.34	-
Critical Hdwy Stg 1	6.44	-	-	-	-	-
Critical Hdwy Stg 2	6.44	-	-	-	-	-
Follow-up Hdwy	3.82	3.62	-	-	2.32	-
Pot Cap-1 Maneuver	21	329	-	-	450	-
Stage 1	156	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	19	329	-	-	450	-
Mov Cap-2 Maneuver	95	-	-	-	-	-
Stage 1	156	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	20.4	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	275	450	-	
HCM Lane V/C Ratio	-	-	0.15	0.087	-	
HCM Control Delay (s)	-	-	20.4	13.8	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	0.5	0.3	-	

HCM 6th Signalized Intersection Summary
7: S Riverside Ave & Jurupa Ave

Anglus Block Facility (Rialto, CA)
Existing PM

							
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	30	155	2	98	1210	1573	53
Future Volume (veh/h)	30	155	2	98	1210	1573	53
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00			1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	33	170		108	1330	1729	58
Peak Hour Factor	0.91	0.91		0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	252	225		157	2629	2079	69
Arrive On Green	0.14	0.14		0.09	0.74	0.59	0.59
Sat Flow, veh/h	1781	1585		1781	3647	3602	117
Grp Volume(v), veh/h	33	170		108	1330	872	915
Grp Sat Flow(s),veh/h/ln	1781	1585		1781	1777	1777	1849
Q Serve(g_s), s	1.4	8.7		5.0	13.1	33.1	33.6
Cycle Q Clear(g_c), s	1.4	8.7		5.0	13.1	33.1	33.6
Prop In Lane	1.00	1.00		1.00			0.06
Lane Grp Cap(c), veh/h	252	225		157	2629	1053	1096
V/C Ratio(X)	0.13	0.76		0.69	0.51	0.83	0.83
Avail Cap(c_a), veh/h	401	357		160	2629	1053	1096
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	34.8		37.4	4.6	13.7	13.9
Incr Delay (d2), s/veh	0.2	5.2		11.5	0.7	7.5	7.5
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.7		2.6	3.7	13.6	14.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.9	40.0		48.9	5.3	21.3	21.4
LnGrp LOS	C	D		D	A	C	C
Approach Vol, veh/h	203				1438	1787	
Approach Delay, s/veh	38.6				8.5	21.3	
Approach LOS	D				A	C	
Timer - Assigned Phs	2			4	5	6	
Phs Duration (G+Y+Rc), s	67.4			17.0	12.4	55.0	
Change Period (Y+Rc), s	6.0			6.0	6.0	6.0	
Max Green Setting (Gmax), s	61.4			18.0	6.6	48.8	
Max Q Clear Time (g_c+I1), s	15.1			10.7	7.0	35.6	
Green Ext Time (p_c), s	14.5			0.3	0.0	9.9	
Intersection Summary							
HCM 6th Ctrl Delay			17.0				
HCM 6th LOS			B				
Notes							

HCM 6th Signalized Intersection Summary 8: S Riverside Ave & Resource Dr/Industrial Dr

Anglus Block Facility (Rialto, CA)
Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	44	71	7	1	6	27	1038	23	21	1175	239
Future Volume (veh/h)	243	44	71	7	1	6	27	1038	23	21	1175	239
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1648	1648	1648	1826	1826	1826	1737	1737	1737	1678	1678	1678
Adj Flow Rate, veh/h	270	49	79	8	1	7	30	1153	26	23	1306	266
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	17	17	5	5	5	11	11	11	15	15	15
Cap, veh/h	388	149	240	187	36	131	63	1829	41	54	1453	292
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.04	0.55	0.55	0.03	0.55	0.55
Sat Flow, veh/h	1240	568	915	508	136	501	1654	3299	74	1598	2644	532
Grp Volume(v), veh/h	270	0	128	16	0	0	30	577	602	23	780	792
Grp Sat Flow(s),veh/h/ln	1240	0	1483	1145	0	0	1654	1650	1724	1598	1594	1582
Q Serve(g_s), s	14.5	0.0	7.0	0.1	0.0	0.0	1.8	24.0	24.0	1.4	43.2	45.2
Cycle Q Clear(g_c), s	21.5	0.0	7.0	7.0	0.0	0.0	1.8	24.0	24.0	1.4	43.2	45.2
Prop In Lane	1.00		0.62	0.50		0.44	1.00		0.04	1.00		0.34
Lane Grp Cap(c), veh/h	388	0	389	354	0	0	63	915	955	54	876	869
V/C Ratio(X)	0.70	0.00	0.33	0.05	0.00	0.00	0.47	0.63	0.63	0.43	0.89	0.91
Avail Cap(c_a), veh/h	608	0	652	600	0	0	99	915	955	96	876	869
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	29.8	27.6	0.0	0.0	47.1	15.3	15.3	47.4	19.9	20.3
Incr Delay (d2), s/veh	2.3	0.0	0.5	0.1	0.0	0.0	5.4	3.3	3.2	5.3	13.2	15.3
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	6.5	0.0	2.6	0.3	0.0	0.0	0.8	8.3	8.6	0.6	16.2	17.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	30.3	27.7	0.0	0.0	52.6	18.6	18.4	52.7	33.1	35.6
LnGrp LOS	D	A	C	C	A	A	D	B	B	D	C	D
Approach Vol, veh/h	398		16				1209				1595	
Approach Delay, s/veh	35.3		27.7				19.4				34.6	
Approach LOS	D		C				B				C	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.4	60.5	31.2		8.8	60.0	31.2					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	54.0	43.0		5.0	54.0	43.0					
Max Q Clear Time (g_c+I1), s	3.4	26.0	23.5		3.8	47.2	9.0					
Green Ext Time (p_c), s	0.0	7.6	1.8		0.0	4.8	0.1					
Intersection Summary												
HCM 6th Ctrl Delay	28.9											
HCM 6th LOS	C											

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	34	1069	7	9	1243
Future Vol, veh/h	0	34	1069	7	9	1243
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	38	1188	8	10	1381
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	598	0	0	1196	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	445	-	-	579	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	445	-	-	579	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	13.8	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	445	579	-	
HCM Lane V/C Ratio	-	-	0.085	0.017	-	
HCM Control Delay (s)	-	-	13.8	11.3	-	
HCM Lane LOS	-	-	B	B	-	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	

HCM 6th Signalized Intersection Summary
10: S Riverside Ave & Agua Mansa Rd

Anglus Block Facility (Rialto, CA)
Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	407	177	73	168	107	127	725	79	101	976	138
Future Volume (veh/h)	159	407	177	73	168	107	127	725	79	101	976	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1604	1604	1604	1767	1767	1767	1781	1781	1781
Adj Flow Rate, veh/h	169	433	188	78	179	114	135	771	84	107	1038	147
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, %	9	9	9	20	20	20	9	9	9	8	8	8
Cap, veh/h	211	485	411	108	401	242	174	1204	131	145	1274	568
Arrive On Green	0.13	0.27	0.27	0.07	0.22	0.22	0.10	0.39	0.39	0.09	0.38	0.38
Sat Flow, veh/h	1682	1767	1497	1527	1825	1104	1682	3053	332	1697	3385	1510
Grp Volume(v), veh/h	169	433	188	78	148	145	135	424	431	107	1038	147
Grp Sat Flow(s),veh/h/ln	1682	1767	1497	1527	1523	1405	1682	1678	1707	1697	1692	1510
Q Serve(g_s), s	11.2	26.9	11.9	5.7	9.6	10.3	8.9	23.4	23.4	7.0	31.5	7.7
Cycle Q Clear(g_c), s	11.2	26.9	11.9	5.7	9.6	10.3	8.9	23.4	23.4	7.0	31.5	7.7
Prop In Lane	1.00		1.00	1.00		0.79	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	211	485	411	108	335	309	174	662	673	145	1274	568
V/C Ratio(X)	0.80	0.89	0.46	0.72	0.44	0.47	0.78	0.64	0.64	0.74	0.81	0.26
Avail Cap(c_a), veh/h	309	541	459	120	335	309	191	662	673	178	1274	568
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(l)	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	48.6	39.8	34.4	52.0	38.5	38.8	49.9	28.0	28.0	51.0	32.0	24.6
Incr Delay (d2), s/veh	9.0	16.0	0.8	17.2	0.9	1.1	16.5	4.7	4.6	11.8	5.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	13.3	4.3	2.6	3.6	3.5	4.4	9.5	9.6	3.3	12.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	55.8	35.2	69.2	39.4	39.9	66.5	32.7	32.7	62.8	37.8	25.7
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	D	C
Approach Vol, veh/h		790			371			990			1292	
Approach Delay, s/veh		51.3			45.9			37.3			38.5	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	50.0	13.1	36.4	16.8	48.0	19.3	30.1				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	11.0	43.0	8.0	34.0	12.0	42.0	20.0	22.0				
Max Q Clear Time (g_c+I1), s	9.0	25.4	7.7	28.9	10.9	33.5	13.2	12.3				
Green Ext Time (p_c), s	0.0	4.4	0.0	1.4	0.0	4.3	0.2	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			41.9									
HCM 6th LOS			D									

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	70	18	15	12
Future Vol, veh/h	5	5	70	18	15	12
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	90	90	90	90	90	90
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	6	6	78	20	17	13
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	135	88	0	0	98	0
Stage 1	88	-	-	-	-	-
Stage 2	47	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	757	853	-	-	1242	-
Stage 1	828	-	-	-	-	-
Stage 2	866	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	746	853	-	-	1242	-
Mov Cap-2 Maneuver	746	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.6	0		4.4		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	796	1242	-	
HCM Lane V/C Ratio	-	-	0.014	0.013	-	
HCM Control Delay (s)	-	-	9.6	7.9	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Intersection								
Int Delay, s/veh	3.2							
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations								
Traffic Vol, veh/h	264	140	67	200	78	88		
Future Vol, veh/h	264	140	67	200	78	88		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Stop	Stop		
RT Channelized	-	None	-	None	-	None		
Storage Length	-	-	200	-	200	0		
Veh in Median Storage, #	0	-	-	0	0	-		
Grade, %	0	-	-	0	0	-		
Peak Hour Factor	90	90	90	90	90	90		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	293	156	74	222	87	98		
Major/Minor	Major1		Major2		Minor1			
Conflicting Flow All	0	0	449	0	741	371		
Stage 1	-	-	-	-	371	-		
Stage 2	-	-	-	-	370	-		
Critical Hdwy	-	-	4.12	-	6.42	6.22		
Critical Hdwy Stg 1	-	-	-	-	5.42	-		
Critical Hdwy Stg 2	-	-	-	-	5.42	-		
Follow-up Hdwy	-	-	2.218	-	3.518	3.318		
Pot Cap-1 Maneuver	-	-	1111	-	384	675		
Stage 1	-	-	-	-	698	-		
Stage 2	-	-	-	-	699	-		
Platoon blocked, %	-	-		-				
Mov Cap-1 Maneuver	-	-	1111	-	358	675		
Mov Cap-2 Maneuver	-	-	-	-	471	-		
Stage 1	-	-	-	-	698	-		
Stage 2	-	-	-	-	652	-		
Approach	EB		WB		NB			
HCM Control Delay, s	0		2.1		12.7			
HCM LOS	B							
Minor Lane/Major Mvmt	NBLn1		NBLn2		EBT	EBR	WBL	WBT
Capacity (veh/h)	471		675		-	-	1111	-
HCM Lane V/C Ratio	0.184		0.145		-	-	0.067	-
HCM Control Delay (s)	14.4		11.2		-	-	8.5	-
HCM Lane LOS	B		B		-	-	A	-
HCM 95th %tile Q(veh)	0.7		0.5		-	-	0.2	-

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Anglus Block Facility (Rialto, CA)

Existing + Growth AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	192	570	186	177	38	371	653	166	65	1194	30
Future Volume (veh/h)	38	192	570	186	177	38	371	653	166	65	1194	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	192	570	186	177	38	371	653	166	65	1194	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	766	564	238	1079	481	486	1491	373	103	1452	36
Arrive On Green	0.05	0.22	0.22	0.13	0.30	0.30	0.14	0.37	0.37	0.06	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4072	1019	1781	5123	129
Grp Volume(v), veh/h	38	192	570	186	177	38	371	544	275	65	793	431
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1687	1781	1702	1847
Q Serve(g_s), s	1.8	4.0	19.0	8.9	3.2	1.5	9.1	10.6	10.9	3.1	19.2	19.2
Cycle Q Clear(g_c), s	1.8	4.0	19.0	8.9	3.2	1.5	9.1	10.6	10.9	3.1	19.2	19.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.07
Lane Grp Cap(c), veh/h	81	766	564	238	1079	481	486	1246	617	103	965	524
V/C Ratio(X)	0.47	0.25	1.01	0.78	0.16	0.08	0.76	0.44	0.45	0.63	0.82	0.82
Avail Cap(c_a), veh/h	121	766	564	242	1079	481	549	1246	617	162	965	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	28.7	28.4	36.9	22.5	21.9	36.5	21.1	21.2	40.6	29.5	29.5
Incr Delay (d2), s/veh	4.1	0.2	40.4	14.8	0.1	0.1	5.6	1.1	2.3	6.2	7.9	13.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	17.6	4.8	1.3	0.6	4.2	4.3	4.6	1.5	8.6	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	28.9	68.8	51.8	22.6	22.0	42.1	22.2	23.5	46.8	37.4	43.1
LnGrp LOS	D	C	F	D	C	C	D	C	C	D	D	D
Approach Vol, veh/h		800			401			1190			1289	
Approach Delay, s/veh		58.1			36.1			28.7			39.8	
Approach LOS		E			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	37.3	16.8	24.0	17.4	30.0	9.0	31.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	30.0	11.0	18.0	13.0	24.0	5.0	24.0				
Max Q Clear Time (g_c+I1), s	5.1	12.9	10.9	21.0	11.1	21.2	3.8	5.2				
Green Ext Time (p_c), s	0.0	5.2	0.0	0.0	0.3	1.9	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay 39.8

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

2: S Riverside Ave & I-10 WB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	568	5	390	329	957	0	0	1102	577
Future Volume (veh/h)	0	0	0	568	5	390	329	957	0	0	1102	577
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				1737	1737	1737	1678	1678	0	0	1870	1870
Adj Flow Rate, veh/h				691	0	262	329	957	0	0	1102	577
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				11	11	11	15	15	0	0	2	2
Cap, veh/h				890	0	396	449	2781	0	0	2576	635
Arrive On Green				0.27	0.00	0.27	0.14	0.61	0.00	0.00	0.40	0.40
Sat Flow, veh/h				3309	0	1472	3100	4731	0	0	6696	1585
Grp Volume(v), veh/h				691	0	262	329	957	0	0	1102	577
Grp Sat Flow(s),veh/h/ln				1654	0	1472	1550	1527	0	0	1609	1585
Q Serve(g_s), s				15.6	0.0	12.8	8.2	8.4	0.0	0.0	10.0	27.7
Cycle Q Clear(g_c), s				15.6	0.0	12.8	8.2	8.4	0.0	0.0	10.0	27.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				890	0	396	449	2781	0	0	2576	635
V/C Ratio(X)				0.78	0.00	0.66	0.73	0.34	0.00	0.00	0.43	0.91
Avail Cap(c_a), veh/h				1271	0	565	615	2781	0	0	2576	635
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				27.3	0.0	26.2	33.0	7.9	0.0	0.0	17.5	22.8
Incr Delay (d2), s/veh				2.0	0.0	1.9	2.9	0.3	0.0	0.0	0.5	19.3
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				6.1	0.0	4.5	3.0	2.0	0.0	0.0	3.2	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.2	0.0	28.1	35.9	8.2	0.0	0.0	18.0	42.1
LnGrp LOS				C	A	C	D	A	A	A	B	D
Approach Vol, veh/h					953			1286			1679	
Approach Delay, s/veh					28.9			15.3			26.3	
Approach LOS					C			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		54.0			16.7	37.3		26.7				
Change Period (Y+Rc), s		6.0			6.0	6.0		6.0				
Max Green Setting (Gmax), s		48.0			15.0	27.0		30.0				
Max Q Clear Time (g_c+I1), s		10.4			10.2	29.7		17.6				
Green Ext Time (p_c), s		6.8			0.5	0.0		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				23.3								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	8	488	0	0	0	0	933	418	415	1258	0
Future Volume (veh/h)	350	8	488	0	0	0	0	933	418	415	1258	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	1693	1693	1693				0	1574	1574	1796	1796	0
Adj Flow Rate, veh/h	527	0	305				0	933	418	415	1258	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14				0	22	22	7	7	0
Cap, veh/h	805	0	358				0	1223	548	527	2173	0
Arrive On Green	0.25	0.00	0.25				0.00	0.42	0.42	0.16	0.64	0.00
Sat Flow, veh/h	3224	0	1434				0	3046	1300	3319	3503	0
Grp Volume(v), veh/h	527	0	305				0	920	431	415	1258	0
Grp Sat Flow(s),veh/h/ln	1612	0	1434				0	1432	1340	1659	1706	0
Q Serve(g_s), s	12.9	0.0	17.8				0.0	24.1	24.1	10.6	18.7	0.0
Cycle Q Clear(g_c), s	12.9	0.0	17.8				0.0	24.1	24.1	10.6	18.7	0.0
Prop In Lane	1.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	805	0	358				0	1207	564	527	2173	0
V/C Ratio(X)	0.65	0.00	0.85				0.00	0.76	0.76	0.79	0.58	0.00
Avail Cap(c_a), veh/h	880	0	391				0	1207	564	604	2173	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	29.6	0.0	31.5				0.0	21.7	21.7	35.6	9.2	0.0
Incr Delay (d2), s/veh	1.6	0.0	15.4				0.0	4.6	9.4	6.1	1.1	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	5.0	0.0	7.5				0.0	7.6	7.9	4.4	5.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	46.8				0.0	26.3	31.2	41.7	10.3	0.0
LnGrp LOS	C	A	D				A	C	C	D	B	A
Approach Vol, veh/h	832						1351			1673		
Approach Delay, s/veh	36.9						27.9			18.1		
Approach LOS	D						C			B		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	19.0	42.0	27.0		61.0							
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0							
Max Green Setting (Gmax), s	15.0	34.0	23.0		55.0							
Max Q Clear Time (g_c+I1), s	12.6	26.1	19.8		20.7							
Green Ext Time (p_c), s	0.4	4.7	1.1		9.9							
Intersection Summary												
HCM 6th Ctrl Delay	25.6											
HCM 6th LOS	C											
Notes												

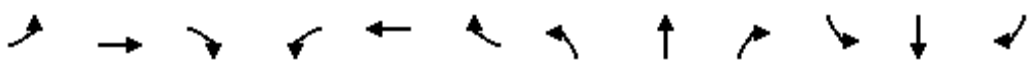
HCM 6th Signalized Intersection Summary 4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	21	74	30	29	31	87	983	29	38	1248	446
Future Volume (veh/h)	266	21	74	30	29	31	87	983	29	38	1248	446
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1693	1693	1693	1455	1455	1455	1500	1500	1500	1722	1722	1722
Adj Flow Rate, veh/h	266	21	74	30	29	31	87	983	29	38	1248	446
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14	30	30	30	27	27	27	12	12	12
Cap, veh/h	339	395	335	306	323	288	95	1568	46	74	1272	440
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.07	0.55	0.55	0.05	0.53	0.53
Sat Flow, veh/h	1215	1693	1434	1012	1383	1233	1428	2826	83	1640	2385	825
Grp Volume(v), veh/h	266	21	74	30	29	31	87	496	516	38	843	851
Grp Sat Flow(s),veh/h/ln	1215	1693	1434	1012	1383	1233	1428	1425	1485	1640	1636	1574
Q Serve(g_s), s	19.2	0.9	3.8	2.1	1.5	1.8	5.4	21.4	21.4	2.0	44.6	48.0
Cycle Q Clear(g_c), s	21.0	0.9	3.8	3.0	1.5	1.8	5.4	21.4	21.4	2.0	44.6	48.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		0.52
Lane Grp Cap(c), veh/h	339	395	335	306	323	288	95	791	824	74	873	839
V/C Ratio(X)	0.78	0.05	0.22	0.10	0.09	0.11	0.91	0.63	0.63	0.51	0.97	1.01
Avail Cap(c_a), veh/h	339	395	335	306	323	288	95	791	824	109	873	839
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	26.8	27.9	27.9	27.0	27.1	41.7	13.7	13.7	42.0	20.2	21.0
Incr Delay (d2), s/veh	11.4	0.1	0.3	0.1	0.1	0.2	64.8	1.6	1.5	5.4	22.5	34.6
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	6.6	0.3	1.2	0.5	0.5	0.5	3.5	5.8	6.0	0.9	18.8	21.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	26.8	28.2	28.1	27.1	27.3	106.5	15.2	15.2	47.4	42.7	55.6
LnGrp LOS	D	C	C	C	C	C	F	B	B	D	D	F
Approach Vol, veh/h	361			90			1099			1732		
Approach Delay, s/veh	42.0			27.5			22.4			49.1		
Approach LOS	D			C			C			D		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.1	54.9	26.0		11.0	53.0	26.0					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	47.0	20.0		5.0	47.0	20.0					
Max Q Clear Time (g_c+I1), s	4.0	23.4	23.0		7.4	50.0	5.0					
Green Ext Time (p_c), s	0.0	6.0	0.0		0.0	0.0	0.3					
Intersection Summary												
HCM 6th Ctrl Delay	38.8											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	68	55	62	35	50	87	88	969	33	65	1132	132
Future Volume (veh/h)	68	55	62	35	50	87	88	969	33	65	1132	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1411	1411	1411	625	625	625	1574	1574	1574	1678	1678	1678
Adj Flow Rate, veh/h	68	55	62	35	50	87	88	969	33	65	1132	132
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	33	33	33	86	86	86	22	22	22	15	15	15
Cap, veh/h	133	91	78	173	137	116	127	1482	50	104	1389	162
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.08	0.50	0.50	0.07	0.48	0.48
Sat Flow, veh/h	288	414	354	426	625	530	1499	2951	100	1598	2876	335
Grp Volume(v), veh/h	185	0	0	35	50	87	88	491	511	65	626	638
Grp Sat Flow(s),veh/h/ln	1057	0	0	426	625	530	1499	1495	1556	1598	1594	1617
Q Serve(g_s), s	7.2	0.0	0.0	0.0	4.8	10.8	4.0	17.1	17.1	2.8	23.6	23.7
Cycle Q Clear(g_c), s	12.0	0.0	0.0	7.4	4.8	10.8	4.0	17.1	17.1	2.8	23.6	23.7
Prop In Lane	0.37		0.34	1.00		1.00	1.00		0.06	1.00		0.21
Lane Grp Cap(c), veh/h	302	0	0	173	137	116	127	751	782	104	770	781
V/C Ratio(X)	0.61	0.00	0.00	0.20	0.36	0.75	0.69	0.65	0.65	0.62	0.81	0.82
Avail Cap(c_a), veh/h	392	0	0	207	187	158	192	935	973	227	1020	1035
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	0.0	24.3	23.3	25.7	31.3	13.0	13.0	32.0	15.5	15.5
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.6	1.6	12.3	6.6	1.1	1.1	5.9	3.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	0.5	0.7	1.6	1.5	4.4	4.6	1.1	7.1	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	0.0	0.0	24.9	24.9	37.9	37.9	14.1	14.1	38.0	19.4	19.4
LnGrp LOS	C	A	A	C	C	D	D	B	B	D	B	B
Approach Vol, veh/h		185			172			1090			1329	
Approach Delay, s/veh		28.2			31.5			16.0			20.3	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	40.3		20.4	11.0	39.0		20.4				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	43.0		20.0	8.0	44.0		20.0				
Max Q Clear Time (g_c+I1), s	4.8	19.1		14.0	6.0	25.7		12.8				
Green Ext Time (p_c), s	0.0	5.9		0.5	0.0	7.3		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			19.8									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	36	1029	7	46	1157
Future Vol, veh/h	0	36	1029	7	46	1157
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	59	59	20	20	15	15
Mvmt Flow	0	36	1029	7	46	1157
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1704	518	0	0	1036	0
Stage 1	1033	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Critical Hdwy	7.98	8.08	-	-	4.4	-
Critical Hdwy Stg 1	6.98	-	-	-	-	-
Critical Hdwy Stg 2	6.98	-	-	-	-	-
Follow-up Hdwy	4.09	3.89	-	-	2.35	-
Pot Cap-1 Maneuver	46	378	-	-	594	-
Stage 1	202	-	-	-	-	-
Stage 2	342	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	42	378	-	-	594	-
Mov Cap-2 Maneuver	131	-	-	-	-	-
Stage 1	202	-	-	-	-	-
Stage 2	316	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.5	0		0.4		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	378	594	-	
HCM Lane V/C Ratio	-	-	0.095	0.077	-	
HCM Control Delay (s)	-	-	15.5	11.6	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	0.3	0.3	-	

HCM 6th Signalized Intersection Summary

7: S Riverside Ave & Jurupa Ave

Anglus Block Facility (Rialto, CA)

Existing + Growth AM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	141	78	1004	1134	44
Future Volume (veh/h)	59	141	78	1004	1134	44
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	141	78	1004	1134	44
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	225	201	122	2661	2219	86
Arrive On Green	0.13	0.13	0.07	0.75	0.64	0.64
Sat Flow, veh/h	1781	1585	1781	3647	3581	135
Grp Volume(v), veh/h	59	141	78	1004	578	600
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1846
Q Serve(g_s), s	2.4	6.8	3.4	7.9	14.0	14.0
Cycle Q Clear(g_c), s	2.4	6.8	3.4	7.9	14.0	14.0
Prop In Lane	1.00	1.00	1.00			0.07
Lane Grp Cap(c), veh/h	225	201	122	2661	1131	1175
V/C Ratio(X)	0.26	0.70	0.64	0.38	0.51	0.51
Avail Cap(c_a), veh/h	445	396	233	2661	1131	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	33.6	36.3	3.5	7.9	7.9
Incr Delay (d2), s/veh	0.6	4.4	5.4	0.4	1.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.2	1.6	2.0	5.0	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.2	38.0	41.8	3.9	9.5	9.4
LnGrp LOS	C	D	D	A	A	A
Approach Vol, veh/h	200			1082	1178	
Approach Delay, s/veh	36.3			6.7	9.5	
Approach LOS	D			A	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	65.0			15.1	9.0	56.0
Change Period (Y+Rc), s	6.0			6.0	4.5	6.0
Max Green Setting (Gmax), s	59.0			19.0	9.5	45.0
Max Q Clear Time (g_c+I1), s	9.9			8.8	5.4	16.0
Green Ext Time (p_c), s	9.4			0.4	0.0	9.5
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
8: S Riverside Ave & Resource Dr/Industrial Dr

Anglus Block Facility (Rialto, CA)

Existing + Growth AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	40	29	15	3	5	34	960	24	8	1213	250
Future Volume (veh/h)	204	40	29	15	3	5	34	960	24	8	1213	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1337	1337	1337	1085	1085	1085	1633	1633	1633	1633	1633	1633
Adj Flow Rate, veh/h	204	40	29	15	3	5	34	960	24	8	1213	250
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	38	38	38	55	55	55	18	18	18	18	18	18
Cap, veh/h	288	164	119	148	27	35	57	1948	49	28	1569	320
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.63	0.63	0.02	0.61	0.61
Sat Flow, veh/h	1006	720	522	434	119	154	1555	3094	77	1555	2566	524
Grp Volume(v), veh/h	204	0	69	23	0	0	34	481	503	8	729	734
Grp Sat Flow(s),veh/h/ln	1006	0	1243	707	0	0	1555	1552	1619	1555	1552	1539
Q Serve(g_s), s	16.7	0.0	5.5	1.4	0.0	0.0	2.6	20.0	20.0	0.6	41.3	42.5
Cycle Q Clear(g_c), s	23.6	0.0	5.5	6.9	0.0	0.0	2.6	20.0	20.0	0.6	41.3	42.5
Prop In Lane	1.00		0.42	0.65		0.22	1.00		0.05	1.00		0.34
Lane Grp Cap(c), veh/h	288	0	282	210	0	0	57	977	1020	28	949	941
V/C Ratio(X)	0.71	0.00	0.24	0.11	0.00	0.00	0.60	0.49	0.49	0.28	0.77	0.78
Avail Cap(c_a), veh/h	328	0	331	243	0	0	78	977	1020	78	949	941
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	0.00	0.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	45.0	0.0	38.0	38.5	0.0	0.0	56.9	11.9	11.9	58.1	17.1	17.3
Incr Delay (d2), s/veh	5.9	0.0	0.4	0.2	0.0	0.0	9.6	1.8	1.7	4.5	5.1	5.4
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	6.4	0.0	1.7	0.6	0.0	0.0	1.1	6.3	6.6	0.3	13.6	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	0.0	38.4	38.7	0.0	0.0	66.6	13.7	13.6	62.7	22.1	22.7
LnGrp LOS	D	A	D	D	A	A	E	B	B	E	C	C
Approach Vol, veh/h	273		23				1018				1471	
Approach Delay, s/veh	47.7		38.7				15.4				22.7	
Approach LOS	D		D				B				C	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.2	80.6	32.2		9.4	78.4	32.2					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	66.0	31.0		5.0	66.0	31.0					
Max Q Clear Time (g_c+I1), s	2.6	22.0	25.6		4.6	44.5	8.9					
Green Ext Time (p_c), s	0.0	6.3	0.7		0.0	9.7	0.1					
Intersection Summary												
HCM 6th Ctrl Delay	22.6											
HCM 6th LOS	C											

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	11	1012	17	21	1236
Future Vol, veh/h	0	11	1012	17	21	1236
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	1012	17	21	1236
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	515	0	0	1029	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	505	-	-	671	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	505	-	-	671	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.3	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 505		671	-	
HCM Lane V/C Ratio	-	- 0.022		0.031	-	
HCM Control Delay (s)	-	- 12.3		10.5	-	
HCM Lane LOS	-	- B		B	-	
HCM 95th %tile Q(veh)	-	- 0.1		0.1	-	

HCM 6th Signalized Intersection Summary 10: S Riverside Ave & Agua Mansa Rd

Anglus Block Facility (Rialto, CA)
Existing + Growth AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	99	78	100	290	83	131	685	37	53	933	154
Future Volume (veh/h)	145	99	78	100	290	83	131	685	37	53	933	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1604	1604	1604	1678	1678	1678	1693	1693	1693	1737	1737	1737
Adj Flow Rate, veh/h	145	99	78	100	290	83	131	685	37	53	933	154
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	20	20	20	15	15	15	14	14	14	11	11	11
Cap, veh/h	180	287	243	134	357	100	167	1621	88	79	1540	687
Arrive On Green	0.12	0.18	0.18	0.08	0.15	0.15	0.10	0.52	0.52	0.10	0.93	0.93
Sat Flow, veh/h	1527	1604	1359	1598	2457	690	1612	3103	167	1654	3300	1472
Grp Volume(v), veh/h	145	99	78	100	186	187	131	355	367	53	933	154
Grp Sat Flow(s),veh/h/ln	1527	1604	1359	1598	1594	1553	1612	1608	1662	1654	1650	1472
Q Serve(g_s), s	11.1	6.5	6.0	7.3	13.6	14.0	9.5	16.2	16.2	3.7	5.2	1.1
Cycle Q Clear(g_c), s	11.1	6.5	6.0	7.3	13.6	14.0	9.5	16.2	16.2	3.7	5.2	1.1
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	180	287	243	134	231	225	167	840	868	79	1540	687
V/C Ratio(X)	0.81	0.34	0.32	0.75	0.81	0.83	0.78	0.42	0.42	0.67	0.61	0.22
Avail Cap(c_a), veh/h	242	321	272	186	252	246	215	840	868	124	1540	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	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	51.6	43.1	42.9	53.7	49.6	49.8	52.5	17.6	17.6	53.3	2.3	2.2
Incr Delay (d2), s/veh	13.4	0.7	0.8	9.9	16.0	19.2	13.3	1.6	1.5	9.3	1.8	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	4.8	2.6	2.0	3.2	6.3	6.5	4.3	5.8	6.0	1.6	1.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	43.8	43.6	63.6	65.7	69.1	65.7	19.1	19.1	62.7	4.1	2.9
LnGrp LOS	E	D	D	E	E	E	E	B	B	E	A	A
Approach Vol, veh/h		322			473			853			1140	
Approach Delay, s/veh		53.3			66.6			26.3			6.7	
Approach LOS		D			E			C			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	67.7	15.1	26.5	17.5	61.0	19.1	22.4				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	8.0	52.0	13.0	23.0	15.0	45.0	18.0	18.0				
Max Q Clear Time (g_c+I1), s	5.7	18.2	9.3	8.5	11.5	7.2	13.1	16.0				
Green Ext Time (p_c), s	0.0	4.1	0.1	0.6	0.1	7.3	0.1	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			28.2									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	5	31	40	34	19
Future Vol, veh/h	4	5	31	40	34	19
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	100	100	100	100	100	100
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	4	5	31	40	34	19
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	138	51	0	0	71	0
Stage 1	51	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	754	896	-	-	1273	-
Stage 1	862	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	734	896	-	-	1273	-
Mov Cap-2 Maneuver	734	-	-	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		5.1		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	816	1273	-	
HCM Lane V/C Ratio	-	-	0.011	0.027	-	
HCM Control Delay (s)	-	-	9.5	7.9	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0	0.1	-	

Intersection								
Int Delay, s/veh	4.2							
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations								
Traffic Vol, veh/h	181	73	72	215	134	69		
Future Vol, veh/h	181	73	72	215	134	69		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Stop	Stop		
RT Channelized	-	None	-	None	-	None		
Storage Length	-	-	200	-	200	0		
Veh in Median Storage, #	0	-	-	0	0	-		
Grade, %	0	-	-	0	0	-		
Peak Hour Factor	100	100	100	100	100	100		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	181	73	72	215	134	69		
Major/Minor	Major1		Major2		Minor1			
Conflicting Flow All	0	0	254	0	577	218		
Stage 1	-	-	-	-	218	-		
Stage 2	-	-	-	-	359	-		
Critical Hdwy	-	-	4.12	-	6.42	6.22		
Critical Hdwy Stg 1	-	-	-	-	5.42	-		
Critical Hdwy Stg 2	-	-	-	-	5.42	-		
Follow-up Hdwy	-	-	2.218	-	3.518	3.318		
Pot Cap-1 Maneuver	-	-	1311	-	478	822		
Stage 1	-	-	-	-	818	-		
Stage 2	-	-	-	-	707	-		
Platoon blocked, %	-	-		-				
Mov Cap-1 Maneuver	-	-	1311	-	452	822		
Mov Cap-2 Maneuver	-	-	-	-	537	-		
Stage 1	-	-	-	-	818	-		
Stage 2	-	-	-	-	668	-		
Approach	EB		WB		NB			
HCM Control Delay, s	0		2		12.5			
HCM LOS	B							
Minor Lane/Major Mvmt	NBLn1		NBLn2		EBT	EBR	WBL	WBT
Capacity (veh/h)	537		822		-	-	1311	-
HCM Lane V/C Ratio	0.25		0.084		-	-	0.055	-
HCM Control Delay (s)	13.9		9.8		-	-	7.9	-
HCM Lane LOS	B		A		-	-	A	-
HCM 95th %tile Q(veh)	1		0.3		-	-	0.2	-

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Anglus Block Facility (Rialto, CA)

Existing + Growth PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	  			  	
Traffic Volume (veh/h)	98	263	495	194	306	131	590	1310	204	85	818	61
Future Volume (veh/h)	98	263	495	194	306	131	590	1310	204	85	818	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	263	495	194	306	131	590	1310	204	85	818	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	758	654	246	962	429	689	1569	244	128	1089	81
Arrive On Green	0.08	0.21	0.21	0.14	0.27	0.27	0.20	0.35	0.35	0.07	0.22	0.22
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4456	694	1781	4849	360
Grp Volume(v), veh/h	98	263	495	194	306	131	590	1001	513	85	573	306
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1745	1781	1702	1806
Q Serve(g_s), s	4.8	5.6	19.0	9.4	6.1	5.9	14.7	24.0	24.0	4.1	14.0	14.1
Cycle Q Clear(g_c), s	4.8	5.6	19.0	9.4	6.1	5.9	14.7	24.0	24.0	4.1	14.0	14.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		0.20
Lane Grp Cap(c), veh/h	144	758	654	246	962	429	689	1199	615	128	764	405
V/C Ratio(X)	0.68	0.35	0.76	0.79	0.32	0.31	0.86	0.83	0.83	0.66	0.75	0.75
Avail Cap(c_a), veh/h	200	758	654	260	962	429	698	1199	615	140	764	405
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	39.8	29.8	22.3	37.1	25.9	25.8	34.4	26.5	26.5	40.3	32.2	32.3
Incr Delay (d2), s/veh	5.5	0.3	5.1	14.2	0.2	0.4	10.1	6.9	12.6	10.1	6.7	12.3
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	2.3	2.4	9.3	5.0	2.6	2.2	7.0	10.5	11.7	2.2	6.3	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.4	30.1	27.4	51.3	26.1	26.2	44.6	33.4	39.1	50.4	38.9	44.5
LnGrp LOS	D	C	C	D	C	C	D	C	D	D	D	D
Approach Vol, veh/h		856			631			2104			964	
Approach Delay, s/veh		30.3			33.9			37.9			41.7	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	36.4	17.3	24.0	22.8	25.0	12.2	29.1				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	6.0	30.0	12.0	18.0	17.0	19.0	9.0	21.0				
Max Q Clear Time (g_c+I1), s	6.1	26.0	11.4	21.0	16.7	16.1	6.8	8.1				
Green Ext Time (p_c), s	0.0	3.1	0.0	0.0	0.1	1.6	0.0	2.0				

Intersection Summary

HCM 6th Ctrl Delay 36.7

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary 2: S Riverside Ave & I-10 WB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	650	3	521	326	1643	0	0	1196	418
Future Volume (veh/h)	0	0	0	650	3	521	326	1643	0	0	1196	418
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				1752	1752	1752	1841	1841	0	0	1856	1856
Adj Flow Rate, veh/h				813	0	348	326	1643	0	0	1196	418
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				10	10	10	4	4	0	0	3	3
Cap, veh/h				1054	0	469	461	2789	0	0	2265	558
Arrive On Green				0.32	0.00	0.32	0.14	0.55	0.00	0.00	0.35	0.35
Sat Flow, veh/h				3337	0	1485	3401	5191	0	0	6643	1572
Grp Volume(v), veh/h				813	0	348	326	1643	0	0	1196	418
Grp Sat Flow(s),veh/h/ln				1668	0	1485	1700	1675	0	0	1596	1572
Q Serve(g_s), s				17.1	0.0	16.2	7.1	16.8	0.0	0.0	11.5	18.1
Cycle Q Clear(g_c), s				17.1	0.0	16.2	7.1	16.8	0.0	0.0	11.5	18.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1054	0	469	461	2789	0	0	2265	558
V/C Ratio(X)				0.77	0.00	0.74	0.71	0.59	0.00	0.00	0.53	0.75
Avail Cap(c_a), veh/h				1593	0	709	614	2789	0	0	2265	558
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				24.0	0.0	23.7	32.0	11.4	0.0	0.0	19.8	22.0
Incr Delay (d2), s/veh				1.3	0.0	2.3	2.4	0.9	0.0	0.0	0.9	8.9
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				6.6	0.0	5.7	2.8	4.8	0.0	0.0	3.8	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.3	0.0	26.0	34.5	12.3	0.0	0.0	20.7	30.9
LnGrp LOS				C	A	C	C	B	A	A	C	C
Approach Vol, veh/h					1161			1969			1614	
Approach Delay, s/veh					25.5			16.0			23.4	
Approach LOS					C			B			C	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	48.0			15.5		32.5	29.5					
Change Period (Y+Rc), s	6.0			6.0		6.0	6.0					
Max Green Setting (Gmax), s	42.0			13.0		23.0	36.0					
Max Q Clear Time (g_c+I1), s	18.8			9.1		20.1	19.1					
Green Ext Time (p_c), s	11.7			0.4		2.1	4.4					
Intersection Summary												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								
Notes												

HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	618	0	463	0	0	0	0	1374	645	481	1391	0
Future Volume (veh/h)	618	0	463	0	0	0	0	1374	645	481	1391	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	1767	1767	1767				0	1781	1781	1796	1796	0
Adj Flow Rate, veh/h	762	0	309				0	1374	645	481	1391	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	9	9	9				0	8	8	7	7	0
Cap, veh/h	823	0	366				0	1412	648	516	2199	0
Arrive On Green	0.24	0.00	0.24				0.00	0.43	0.43	0.16	0.64	0.00
Sat Flow, veh/h	3365	0	1497				0	3419	1496	3319	3503	0
Grp Volume(v), veh/h	762	0	309				0	1367	652	481	1391	0
Grp Sat Flow(s),veh/h/ln	1682	0	1497				0	1621	1512	1659	1706	0
Q Serve(g_s), s	19.9	0.0	17.7				0.0	37.2	38.7	12.9	22.0	0.0
Cycle Q Clear(g_c), s	19.9	0.0	17.7				0.0	37.2	38.7	12.9	22.0	0.0
Prop In Lane	1.00		1.00				0.00		0.99	1.00		0.00
Lane Grp Cap(c), veh/h	823	0	366				0	1405	655	516	2199	0
V/C Ratio(X)	0.93	0.00	0.84				0.00	0.97	1.00	0.93	0.63	0.00
Avail Cap(c_a), veh/h	823	0	366				0	1405	655	516	2199	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	33.2	0.0	32.4				0.0	25.0	25.4	37.5	9.6	0.0
Incr Delay (d2), s/veh	16.3	0.0	16.4				0.0	18.4	34.0	23.9	1.4	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	9.7	0.0	7.9				0.0	15.6	17.8	6.5	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	0.0	48.7				0.0	43.4	59.4	61.4	11.0	0.0
LnGrp LOS	D	A	D				A	D	E	E	B	A
Approach Vol, veh/h	1071						2019			1872		
Approach Delay, s/veh	49.3						48.5			24.0		
Approach LOS	D						D			C		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	19.0	44.0		27.0			63.0					
Change Period (Y+Rc), s	6.0	6.0		6.0			6.0					
Max Green Setting (Gmax), s	13.0	38.0		21.0			57.0					
Max Q Clear Time (g_c+I1), s	14.9	40.7		21.9			24.0					
Green Ext Time (p_c), s	0.0	0.0		0.0			11.4					

Intersection Summary

HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

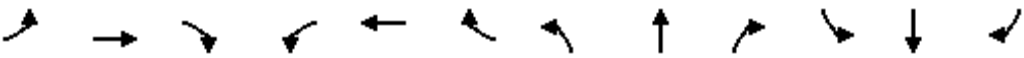
HCM 6th Signalized Intersection Summary 4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	431	124	155	34	31	76	36	1450	23	28	1524	298
Future Volume (veh/h)	431	124	155	34	31	76	36	1450	23	28	1524	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1796	1796	1796	1411	1411	1411	1767	1767	1767	1707	1707	1707
Adj Flow Rate, veh/h	431	124	155	34	31	76	36	1450	23	28	1524	298
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	7	7	7	33	33	33	9	9	9	13	13	13
Cap, veh/h	403	552	467	294	412	367	75	1633	26	64	1298	248
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.04	0.48	0.48	0.04	0.48	0.48
Sat Flow, veh/h	1236	1796	1522	830	1340	1196	1682	3382	54	1626	2718	518
Grp Volume(v), veh/h	431	124	155	34	31	76	36	719	754	28	894	928
Grp Sat Flow(s),veh/h/ln	1236	1796	1522	830	1340	1196	1682	1678	1757	1626	1622	1614
Q Serve(g_s), s	22.9	4.5	6.9	2.8	1.4	4.1	1.8	34.1	34.2	1.5	42.0	42.0
Cycle Q Clear(g_c), s	27.0	4.5	6.9	7.3	1.4	4.1	1.8	34.1	34.2	1.5	42.0	42.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.32
Lane Grp Cap(c), veh/h	403	552	467	294	412	367	75	810	848	64	775	771
V/C Ratio(X)	1.07	0.22	0.33	0.12	0.08	0.21	0.48	0.89	0.89	0.44	1.15	1.20
Avail Cap(c_a), veh/h	403	552	467	294	412	367	115	810	848	111	775	771
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(l)	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	34.9	22.7	23.5	25.4	21.6	22.5	41.0	20.6	20.6	41.3	23.0	23.0
Incr Delay (d2), s/veh	64.3	0.2	0.4	0.2	0.1	0.3	4.7	11.7	11.4	4.6	83.6	103.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.6	1.8	2.4	0.5	0.4	1.1	0.8	13.5	14.1	0.6	31.0	35.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.2	22.9	23.9	25.6	21.7	22.8	45.7	32.3	32.0	45.8	106.6	126.8
LnGrp LOS	F	C	C	C	C	C	D	C	C	D	F	F
Approach Vol, veh/h	710			141			1509			1850		
Approach Delay, s/veh	69.4			23.2			32.5			115.8		
Approach LOS	E			C			C			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	47.4		32.0	8.9	47.0		32.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	5.0	41.0		26.0	5.0	41.0		26.0				
Max Q Clear Time (g_c+I1), s	3.5	36.2		29.0	3.8	44.0		9.3				
Green Ext Time (p_c), s	0.0	3.3		0.0	0.0	0.0		0.6				
Intersection Summary												
HCM 6th Ctrl Delay	75.0											
HCM 6th LOS	E											

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	111	16	98	40	20	68	88	1302	20	57	1567	81
Future Volume (veh/h)	111	16	98	40	20	68	88	1302	20	57	1567	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1633	1633	1633	1752	1752	1752	1707	1707	1707
Adj Flow Rate, veh/h	111	16	98	40	20	68	88	1302	20	57	1567	81
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	13	13	13	18	18	18	10	10	10	13	13	13
Cap, veh/h	183	31	116	267	325	275	118	1912	29	90	1741	90
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.07	0.57	0.57	0.06	0.55	0.55
Sat Flow, veh/h	603	155	585	1116	1633	1384	1668	3355	52	1626	3139	162
Grp Volume(v), veh/h	225	0	0	40	20	68	88	646	676	57	807	841
Grp Sat Flow(s),veh/h/ln	1343	0	0	1116	1633	1384	1668	1664	1743	1626	1622	1678
Q Serve(g_s), s	12.4	0.0	0.0	0.0	0.8	3.5	4.4	23.2	23.2	2.9	37.5	38.1
Cycle Q Clear(g_c), s	13.7	0.0	0.0	3.3	0.8	3.5	4.4	23.2	23.2	2.9	37.5	38.1
Prop In Lane	0.49		0.44	1.00		1.00	1.00		0.03	1.00		0.10
Lane Grp Cap(c), veh/h	330	0	0	267	325	275	118	948	993	90	899	931
V/C Ratio(X)	0.68	0.00	0.00	0.15	0.06	0.25	0.75	0.68	0.68	0.63	0.90	0.90
Avail Cap(c_a), veh/h	362	0	0	294	364	309	118	958	1003	134	952	985
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(l)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	0.0	0.0	28.6	27.7	28.7	38.8	12.9	12.9	39.4	16.8	16.9
Incr Delay (d2), s/veh	4.6	0.0	0.0	0.3	0.1	0.5	23.0	2.0	1.9	7.2	10.7	11.2
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	4.6	0.0	0.0	0.7	0.3	1.1	2.4	7.0	7.3	1.3	13.2	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	0.0	0.0	28.9	27.7	29.2	61.8	14.8	14.8	46.6	27.5	28.1
LnGrp LOS	D	A	A	C	C	C	E	B	B	D	C	C
Approach Vol, veh/h		225			128			1410			1705	
Approach Delay, s/veh		37.3			28.9			17.7			28.4	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	53.5		21.9	11.0	52.2		21.9				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	6.0	48.0		18.0	5.0	49.0		18.0				
Max Q Clear Time (g_c+I1), s	4.9	25.2		15.7	6.4	40.1		5.5				
Green Ext Time (p_c), s	0.0	8.4		0.3	0.0	6.1		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			24.7									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	36	1297	9	37	1695
Future Vol, veh/h	3	36	1297	9	37	1695
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	32	32	9	9	12	12
Mvmt Flow	3	36	1297	9	37	1695
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2224	653	0	0	1306	0
Stage 1	1302	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Critical Hdwy	7.44	7.54	-	-	4.34	-
Critical Hdwy Stg 1	6.44	-	-	-	-	-
Critical Hdwy Stg 2	6.44	-	-	-	-	-
Follow-up Hdwy	3.82	3.62	-	-	2.32	-
Pot Cap-1 Maneuver	25	345	-	-	475	-
Stage 1	169	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	23	345	-	-	475	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	169	-	-	-	-	-
Stage 2	262	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.2	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	293	475	-	
HCM Lane V/C Ratio	-	-	0.133	0.078	-	
HCM Control Delay (s)	-	-	19.2	13.2	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	0.5	0.3	-	

HCM 6th Signalized Intersection Summary 7: S Riverside Ave & Jurupa Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth PM

							
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	31	161	2	102	1259	1637	55
Future Volume (veh/h)	31	161	2	102	1259	1637	55
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00			1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	31	161		102	1259	1637	55
Peak Hour Factor	1.00	1.00		1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	243	217		151	2636	2156	72
Arrive On Green	0.14	0.14		0.08	0.74	0.61	0.61
Sat Flow, veh/h	1781	1585		1781	3647	3602	118
Grp Volume(v), veh/h	31	161		102	1259	826	866
Grp Sat Flow(s),veh/h/ln	1781	1585		1781	1777	1777	1849
Q Serve(g_s), s	1.3	8.0		4.6	11.7	27.6	27.9
Cycle Q Clear(g_c), s	1.3	8.0		4.6	11.7	27.6	27.9
Prop In Lane	1.00	1.00		1.00			0.06
Lane Grp Cap(c), veh/h	243	217		151	2636	1092	1136
V/C Ratio(X)	0.13	0.74		0.68	0.48	0.76	0.76
Avail Cap(c_a), veh/h	412	366		193	2636	1092	1136
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	34.1		36.6	4.2	11.4	11.5
Incr Delay (d2), s/veh	0.2	5.0		6.3	0.6	4.9	4.8
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.3		2.2	3.2	10.6	11.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.4	39.1		42.8	4.9	16.3	16.3
LnGrp LOS	C	D		D	A	B	B
Approach Vol, veh/h	192				1361	1692	
Approach Delay, s/veh	37.9				7.7	16.3	
Approach LOS	D				A	B	
Timer - Assigned Phs	2			4	5	6	
Phs Duration (G+Y+Rc), s	66.0			16.2	10.5	55.5	
Change Period (Y+Rc), s	6.0			6.0	4.5	6.0	
Max Green Setting (Gmax), s	60.0			18.0	7.9	47.6	
Max Q Clear Time (g_c+I1), s	13.7			10.0	6.6	29.9	
Green Ext Time (p_c), s	13.2			0.3	0.0	11.8	
Intersection Summary							
HCM 6th Ctrl Delay			14.0				
HCM 6th LOS			B				
Notes							

HCM 6th Signalized Intersection Summary 8: S Riverside Ave & Resource Dr/Industrial Dr

Anglus Block Facility (Rialto, CA)

Existing + Growth PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	46	74	7	1	6	28	1080	24	22	1222	249
Future Volume (veh/h)	253	46	74	7	1	6	28	1080	24	22	1222	249
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1648	1648	1648	1826	1826	1826	1737	1737	1737	1678	1678	1678
Adj Flow Rate, veh/h	253	46	74	7	1	6	28	1080	24	22	1222	249
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	17	17	17	5	5	5	11	11	11	15	15	15
Cap, veh/h	344	136	219	165	33	115	56	1998	44	48	1590	321
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.07	1.00	1.00	0.03	0.60	0.60
Sat Flow, veh/h	1241	569	915	501	139	480	1654	3301	73	1598	2642	533
Grp Volume(v), veh/h	253	0	120	14	0	0	28	540	564	22	733	738
Grp Sat Flow(s),veh/h/ln	1241	0	1483	1120	0	0	1654	1650	1724	1598	1594	1582
Q Serve(g_s), s	16.9	0.0	8.0	0.1	0.0	0.0	2.0	0.0	0.0	1.6	40.7	41.8
Cycle Q Clear(g_c), s	25.0	0.0	8.0	8.1	0.0	0.0	2.0	0.0	0.0	1.6	40.7	41.8
Prop In Lane	1.00		0.62	0.50		0.43	1.00		0.04	1.00		0.34
Lane Grp Cap(c), veh/h	344	0	355	313	0	0	56	999	1044	48	959	952
V/C Ratio(X)	0.74	0.00	0.34	0.04	0.00	0.00	0.50	0.54	0.54	0.46	0.76	0.78
Avail Cap(c_a), veh/h	388	0	408	363	0	0	83	999	1044	80	959	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.62	0.62	0.62
Uniform Delay (d), s/veh	44.6	0.0	37.7	35.1	0.0	0.0	55.0	0.0	0.0	57.2	17.6	17.8
Incr Delay (d2), s/veh	6.3	0.0	0.6	0.1	0.0	0.0	6.9	2.1	2.0	4.2	3.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	3.0	0.3	0.0	0.0	0.9	0.6	0.6	0.7	13.5	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	0.0	38.3	35.2	0.0	0.0	61.9	2.1	2.0	61.4	21.3	21.7
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	C	C
Approach Vol, veh/h	373		14				1132		1493			
Approach Delay, s/veh	46.8		35.2				3.5		22.1			
Approach LOS	D		D				A		C			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.6	77.6	33.8		9.0	77.2	33.8					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	65.0	32.0		5.0	65.0	32.0					
Max Q Clear Time (g_c+I1), s	3.6	2.0	27.0		4.0	43.8	10.1					
Green Ext Time (p_c), s	0.0	7.6	0.8		0.0	9.7	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Vol, veh/h	0	35	1112	7	9	1293
Future Vol, veh/h	0	35	1112	7	9	1293
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	1112	7	9	1293
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	560	0	0	1119	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	472	-	-	620	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	472	-	-	620	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	13.2	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 472		620	-	
HCM Lane V/C Ratio	-	- 0.074		0.015	-	
HCM Control Delay (s)	-	- 13.2		10.9	-	
HCM Lane LOS	-	- B		B	-	
HCM 95th %tile Q(veh)	-	- 0.2		0	-	

HCM 6th Signalized Intersection Summary 10: S Riverside Ave & Agua Mansa Rd

Anglus Block Facility (Rialto, CA)

Existing + Growth PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	423	184	76	175	111	132	754	82	105	1015	144
Future Volume (veh/h)	165	423	184	76	175	111	132	754	82	105	1015	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1767	1767	1767	1604	1604	1604	1767	1767	1767	1781	1781	1781
Adj Flow Rate, veh/h	165	423	184	76	175	111	132	754	82	105	1015	144
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	9	9	9	20	20	20	9	9	9	8	8	8
Cap, veh/h	205	468	396	105	387	233	169	1277	139	139	1352	603
Arrive On Green	0.12	0.26	0.26	0.07	0.21	0.21	0.10	0.42	0.42	0.16	0.80	0.80
Sat Flow, veh/h	1682	1767	1497	1527	1829	1100	1682	3053	332	1697	3385	1510
Grp Volume(v), veh/h	165	423	184	76	144	142	132	414	422	105	1015	144
Grp Sat Flow(s),veh/h/ln	1682	1767	1497	1527	1523	1406	1682	1678	1707	1697	1692	1510
Q Serve(g_s), s	11.5	27.8	12.4	5.9	9.9	10.6	9.2	22.9	22.9	7.1	18.1	2.8
Cycle Q Clear(g_c), s	11.5	27.8	12.4	5.9	9.9	10.6	9.2	22.9	22.9	7.1	18.1	2.8
Prop In Lane	1.00		1.00	1.00		0.78	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	205	468	396	105	322	297	169	702	714	139	1352	603
V/C Ratio(X)	0.81	0.90	0.46	0.73	0.45	0.48	0.78	0.59	0.59	0.76	0.75	0.24
Avail Cap(c_a), veh/h	294	501	424	115	322	297	182	702	714	156	1352	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	51.3	42.7	37.0	54.8	41.2	41.5	52.7	27.0	27.0	49.0	9.1	7.5
Incr Delay (d2), s/veh	10.1	19.1	0.8	18.6	1.0	1.2	18.1	3.6	3.6	17.0	3.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	14.1	4.5	2.7	3.7	3.7	4.6	9.2	9.3	3.4	3.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	61.8	37.8	73.4	42.2	42.7	70.7	30.6	30.5	66.0	12.9	8.5
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	B	A
Approach Vol, veh/h	772			362			968			1264		
Approach Delay, s/veh	56.0			48.9			36.0			16.8		
Approach LOS	E			D			D			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	55.2	13.2	36.8	17.1	52.9	19.6	30.4				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	10.0	45.0	8.0	33.0	12.0	43.0	20.0	21.0				
Max Q Clear Time (g_c+I1), s	9.1	24.9	7.9	29.8	11.2	20.1	13.5	12.6				
Green Ext Time (p_c), s	0.0	4.4	0.0	1.0	0.0	7.1	0.2	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	34.8											
HCM 6th LOS	C											

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	73	19	16	12
Future Vol, veh/h	5	5	73	19	16	12
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	100	100	100	100	100	100
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	5	5	73	19	16	12
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	127	83	0	0	92	0
Stage 1	83	-	-	-	-	-
Stage 2	44	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	765	859	-	-	1249	-
Stage 1	832	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	755	859	-	-	1249	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	832	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		4.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	804	1249	-	
HCM Lane V/C Ratio	-	-	0.012	0.013	-	
HCM Control Delay (s)	-	-	9.5	7.9	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Intersection

Int Delay, s/veh 3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	146	70	208	81	92
Future Vol, veh/h	275	146	70	208	81	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	275	146	70	208	81	92

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	421
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1138
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1138
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	490	695	-	-	1138	-
HCM Lane V/C Ratio	0.165	0.132	-	-	0.062	-
HCM Control Delay (s)	13.8	11	-	-	8.4	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.2	-

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Anglus Block Facility (Rialto, CA)

Existing + Growth + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	192	570	186	177	38	371	657	166	65	1208	30
Future Volume (veh/h)	38	192	570	186	177	38	371	657	166	65	1208	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	192	570	186	177	38	371	657	166	65	1208	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	766	564	238	1079	481	486	1493	371	103	1453	36
Arrive On Green	0.05	0.22	0.22	0.13	0.30	0.30	0.14	0.37	0.37	0.06	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4078	1014	1781	5124	127
Grp Volume(v), veh/h	38	192	570	186	177	38	371	547	276	65	802	436
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1688	1781	1702	1847
Q Serve(g_s), s	1.8	4.0	19.0	8.9	3.2	1.5	9.1	10.7	10.9	3.1	19.5	19.5
Cycle Q Clear(g_c), s	1.8	4.0	19.0	8.9	3.2	1.5	9.1	10.7	10.9	3.1	19.5	19.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.07
Lane Grp Cap(c), veh/h	81	766	564	238	1079	481	486	1246	618	103	965	524
V/C Ratio(X)	0.47	0.25	1.01	0.78	0.16	0.08	0.76	0.44	0.45	0.63	0.83	0.83
Avail Cap(c_a), veh/h	121	766	564	242	1079	481	549	1246	618	162	965	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	28.7	28.4	36.9	22.5	21.9	36.5	21.1	21.2	40.6	29.6	29.6
Incr Delay (d2), s/veh	4.1	0.2	40.4	14.8	0.1	0.1	5.6	1.1	2.3	6.2	8.3	14.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	17.6	4.8	1.3	0.6	4.2	4.3	4.6	1.5	8.8	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	28.9	68.8	51.8	22.6	22.0	42.1	22.2	23.5	46.8	37.9	43.9
LnGrp LOS	D	C	F	D	C	C	D	C	C	D	D	D
Approach Vol, veh/h		800			401			1194			1303	
Approach Delay, s/veh		58.1			36.1			28.7			40.4	
Approach LOS		E			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	37.3	16.8	24.0	17.4	30.0	9.0	31.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	30.0	11.0	18.0	13.0	24.0	5.0	24.0				
Max Q Clear Time (g_c+I1), s	5.1	12.9	10.9	21.0	11.1	21.5	3.8	5.2				
Green Ext Time (p_c), s	0.0	5.2	0.0	0.0	0.3	1.8	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			40.0									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

2: S Riverside Ave & I-10 WB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth + Project AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↷	↷	↰	↷			↷	↰
Traffic Volume (veh/h)	0	0	0	605	5	390	340	961	0	0	1116	577
Future Volume (veh/h)	0	0	0	605	5	390	340	961	0	0	1116	577
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				1737	1737	1737	1678	1678	0	0	1870	1870
Adj Flow Rate, veh/h				728	0	262	340	961	0	0	1116	577
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				11	11	11	15	15	0	0	2	2
Cap, veh/h				922	0	410	451	2744	0	0	2525	622
Arrive On Green				0.28	0.00	0.28	0.15	0.60	0.00	0.00	0.39	0.39
Sat Flow, veh/h				3309	0	1472	3100	4731	0	0	6696	1585
Grp Volume(v), veh/h				728	0	262	340	961	0	0	1116	577
Grp Sat Flow(s),veh/h/ln				1654	0	1472	1550	1527	0	0	1609	1585
Q Serve(g_s), s				16.6	0.0	12.8	8.6	8.7	0.0	0.0	10.4	28.4
Cycle Q Clear(g_c), s				16.6	0.0	12.8	8.6	8.7	0.0	0.0	10.4	28.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				922	0	410	451	2744	0	0	2525	622
V/C Ratio(X)				0.79	0.00	0.64	0.75	0.35	0.00	0.00	0.44	0.93
Avail Cap(c_a), veh/h				1254	0	558	531	2744	0	0	2525	622
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				27.3	0.0	25.9	33.5	8.3	0.0	0.0	18.3	23.7
Incr Delay (d2), s/veh				2.4	0.0	1.7	5.1	0.4	0.0	0.0	0.6	22.1
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				6.6	0.0	4.5	3.3	2.2	0.0	0.0	3.4	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.7	0.0	27.5	38.7	8.7	0.0	0.0	18.8	45.8
LnGrp LOS				C	A	C	D	A	A	A	B	D
Approach Vol, veh/h					990			1301			1693	
Approach Delay, s/veh					29.2			16.5			28.0	
Approach LOS					C			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		54.0			16.9	37.1		27.8				
Change Period (Y+Rc), s		6.0			6.0	6.0		6.0				
Max Green Setting (Gmax), s		48.0			13.0	29.0		30.0				
Max Q Clear Time (g_c+I1), s		10.7			10.6	30.4		18.6				
Green Ext Time (p_c), s		6.8			0.3	0.0		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				24.5								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  		 	 	
Traffic Volume (veh/h)	350	8	525	0	0	0	0	948	429	415	1308	0
Future Volume (veh/h)	350	8	525	0	0	0	0	948	429	415	1308	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	1693	1693	1693				0	1574	1574	1796	1796	0
Adj Flow Rate, veh/h	236	0	652				0	948	429	415	1308	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14				0	22	22	7	7	0
Cap, veh/h	425	0	756				0	1189	538	516	2126	0
Arrive On Green	0.26	0.00	0.26				0.00	0.41	0.41	0.16	0.62	0.00
Sat Flow, veh/h	1612	0	2869				0	3036	1309	3319	3503	0
Grp Volume(v), veh/h	236	0	652				0	938	439	415	1308	0
Grp Sat Flow(s),veh/h/ln	1612	0	1434				0	1432	1338	1659	1706	0
Q Serve(g_s), s	11.1	0.0	19.1				0.0	25.3	25.3	10.7	20.7	0.0
Cycle Q Clear(g_c), s	11.1	0.0	19.1				0.0	25.3	25.3	10.7	20.7	0.0
Prop In Lane	1.00		1.00				0.00		0.98	1.00		0.00
Lane Grp Cap(c), veh/h	425	0	756				0	1177	550	516	2126	0
V/C Ratio(X)	0.56	0.00	0.86				0.00	0.80	0.80	0.80	0.62	0.00
Avail Cap(c_a), veh/h	456	0	812				0	1177	550	526	2126	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	28.0	0.0	31.0				0.0	22.8	22.8	36.0	10.2	0.0
Incr Delay (d2), s/veh	1.3	0.0	9.0				0.0	5.7	11.4	8.7	1.3	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	4.3	0.0	7.3				0.0	8.2	8.5	4.6	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	39.9				0.0	28.4	34.2	44.7	11.5	0.0
LnGrp LOS	C	A	D				A	C	C	D	B	A
Approach Vol, veh/h	888						1377			1723		
Approach Delay, s/veh	37.1						30.3			19.5		
Approach LOS	D						C			B		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.7	41.3		28.3		60.0						
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0						
Max Green Setting (Gmax), s	13.0	35.0		24.0		54.0						
Max Q Clear Time (g_c+I1), s	12.7	27.3		21.1		22.7						
Green Ext Time (p_c), s	0.1	4.7		1.2		10.2						
Intersection Summary												
HCM 6th Ctrl Delay	27.1											
HCM 6th LOS	C											
Notes												

HCM 6th Signalized Intersection Summary 4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	21	79	35	29	31	89	1009	31	38	1335	446
Future Volume (veh/h)	266	21	79	35	29	31	89	1009	31	38	1335	446
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1693	1693	1693	1455	1455	1455	1500	1500	1500	1722	1722	1722
Adj Flow Rate, veh/h	266	21	79	35	29	31	89	1009	31	38	1335	446
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14	30	30	30	27	27	27	12	12	12
Cap, veh/h	316	361	306	286	295	263	96	1616	50	75	1340	431
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.07	0.57	0.57	0.05	0.55	0.55
Sat Flow, veh/h	1215	1693	1434	1008	1383	1233	1428	2822	87	1640	2435	783
Grp Volume(v), veh/h	266	21	79	35	29	31	89	509	531	38	880	901
Grp Sat Flow(s),veh/h/ln	1215	1693	1434	1008	1383	1233	1428	1425	1484	1640	1636	1581
Q Serve(g_s), s	17.2	0.9	4.1	2.6	1.5	1.8	5.5	21.2	21.2	2.0	46.5	49.0
Cycle Q Clear(g_c), s	19.0	0.9	4.1	3.4	1.5	1.8	5.5	21.2	21.2	2.0	46.5	49.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		0.49
Lane Grp Cap(c), veh/h	316	361	306	286	295	263	96	816	850	75	901	871
V/C Ratio(X)	0.84	0.06	0.26	0.12	0.10	0.12	0.92	0.62	0.62	0.51	0.98	1.04
Avail Cap(c_a), veh/h	316	361	306	286	295	263	96	816	850	111	901	871
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	27.9	29.1	29.2	28.1	28.2	41.3	12.7	12.7	41.5	19.4	20.0
Incr Delay (d2), s/veh	18.3	0.1	0.4	0.2	0.1	0.2	67.4	1.5	1.4	5.3	24.3	39.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.3	1.4	0.6	0.5	0.5	3.6	5.5	5.8	0.9	19.6	23.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.2	27.9	29.6	29.4	28.3	28.4	108.7	14.2	14.1	46.8	43.8	59.9
LnGrp LOS	E	C	C	C	C	C	F	B	B	D	D	F
Approach Vol, veh/h	366			95			1129			1819		
Approach Delay, s/veh	48.1			28.7			21.6			51.8		
Approach LOS	D			C			C			D		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.0	56.0	24.0		11.0	54.0	24.0					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	49.0	18.0		5.0	48.0	18.0					
Max Q Clear Time (g_c+I1), s	4.0	23.2	21.0		7.5	51.0	5.4					
Green Ext Time (p_c), s	0.0	6.4	0.0		0.0	0.0	0.3					
Intersection Summary												
HCM 6th Ctrl Delay	40.8											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	55	65	35	50	87	89	998	33	65	1230	132
Future Volume (veh/h)	68	55	65	35	50	87	89	998	33	65	1230	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1411	1411	1411	625	625	625	1574	1574	1574	1678	1678	1678
Adj Flow Rate, veh/h	68	55	65	35	50	87	89	998	33	65	1230	132
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	33	33	33	86	86	86	22	22	22	15	15	15
Cap, veh/h	126	88	79	160	137	116	126	1548	51	100	1459	156
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.08	0.52	0.52	0.06	0.50	0.50
Sat Flow, veh/h	283	401	362	425	625	530	1499	2954	98	1598	2905	311
Grp Volume(v), veh/h	188	0	0	35	50	87	89	505	526	65	673	689
Grp Sat Flow(s),veh/h/ln	1046	0	0	425	625	530	1499	1495	1556	1598	1594	1622
Q Serve(g_s), s	8.3	0.0	0.0	0.0	5.2	11.8	4.4	18.7	18.7	3.1	28.0	28.3
Cycle Q Clear(g_c), s	13.5	0.0	0.0	8.7	5.2	11.8	4.4	18.7	18.7	3.1	28.0	28.3
Prop In Lane	0.36		0.35	1.00		1.00	1.00		0.06	1.00		0.19
Lane Grp Cap(c), veh/h	292	0	0	160	137	116	126	784	816	100	801	815
V/C Ratio(X)	0.64	0.00	0.00	0.22	0.37	0.75	0.70	0.64	0.64	0.65	0.84	0.85
Avail Cap(c_a), veh/h	339	0	0	178	162	138	156	874	910	208	973	990
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(l)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	0.0	26.9	25.6	28.1	34.3	13.2	13.2	35.3	16.5	16.6
Incr Delay (d2), s/veh	3.3	0.0	0.0	0.7	1.6	17.2	10.3	1.4	1.3	6.9	5.7	5.8
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	3.4	0.0	0.0	0.6	0.8	1.9	1.8	5.0	5.2	1.3	9.0	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	0.0	0.0	27.6	27.2	45.4	44.6	14.6	14.5	42.1	22.2	22.4
LnGrp LOS	C	A	A	C	C	D	D	B	B	D	C	C
Approach Vol, veh/h		188			172			1120			1427	
Approach Delay, s/veh		32.2			36.5			16.9			23.2	
Approach LOS		C			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	45.4		21.8	11.5	43.7		21.8				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	44.0		19.0	7.0	46.0		19.0				
Max Q Clear Time (g_c+I1), s	5.1	20.7		15.5	6.4	30.3		13.8				
Green Ext Time (p_c), s	0.0	6.1		0.3	0.0	7.4		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			22.2									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	66	1029	7	146	1157
Future Vol, veh/h	0	66	1029	7	146	1157
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	59	59	20	20	15	15
Mvmt Flow	0	66	1029	7	146	1157
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1904	518	0	0	1036	0
Stage 1	1033	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Critical Hdwy	7.98	8.08	-	-	4.4	-
Critical Hdwy Stg 1	6.98	-	-	-	-	-
Critical Hdwy Stg 2	6.98	-	-	-	-	-
Follow-up Hdwy	4.09	3.89	-	-	2.35	-
Pot Cap-1 Maneuver	32	378	-	-	594	-
Stage 1	202	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	24	378	-	-	594	-
Mov Cap-2 Maneuver	101	-	-	-	-	-
Stage 1	202	-	-	-	-	-
Stage 2	193	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	16.5	0		1.5		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	378	594	-	
HCM Lane V/C Ratio	-	-	0.175	0.246	-	
HCM Control Delay (s)	-	-	16.5	13	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	0.6	1	-	

HCM 6th Signalized Intersection Summary 7: S Riverside Ave & Jurupa Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project AM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	141	78	1004	1134	44
Future Volume (veh/h)	59	141	78	1004	1134	44
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	141	78	1004	1134	44
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	225	201	122	2661	2219	86
Arrive On Green	0.13	0.13	0.07	0.75	0.64	0.64
Sat Flow, veh/h	1781	1585	1781	3647	3581	135
Grp Volume(v), veh/h	59	141	78	1004	578	600
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1846
Q Serve(g_s), s	2.4	6.8	3.4	7.9	14.0	14.0
Cycle Q Clear(g_c), s	2.4	6.8	3.4	7.9	14.0	14.0
Prop In Lane	1.00	1.00	1.00			0.07
Lane Grp Cap(c), veh/h	225	201	122	2661	1131	1175
V/C Ratio(X)	0.26	0.70	0.64	0.38	0.51	0.51
Avail Cap(c_a), veh/h	445	396	233	2661	1131	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	33.6	36.3	3.5	7.9	7.9
Incr Delay (d2), s/veh	0.6	4.4	5.4	0.4	1.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.2	1.6	2.0	5.0	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.2	38.0	41.8	3.9	9.5	9.4
LnGrp LOS	C	D	D	A	A	A
Approach Vol, veh/h	200			1082	1178	
Approach Delay, s/veh	36.3			6.7	9.5	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		65.0		15.1	9.0	56.0
Change Period (Y+Rc), s		6.0		6.0	4.5	6.0
Max Green Setting (Gmax), s		59.0		19.0	9.5	45.0
Max Q Clear Time (g_c+I1), s		9.9		8.8	5.4	16.0
Green Ext Time (p_c), s		9.4		0.4	0.0	9.5
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary 8: S Riverside Ave & Resource Dr/Industrial Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	45	29	29	5	5	34	960	69	8	1213	250
Future Volume (veh/h)	204	45	29	29	5	5	34	960	69	8	1213	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1337	1337	1337	1085	1085	1085	1633	1633	1633	1633	1633	1633
Adj Flow Rate, veh/h	204	45	29	29	5	5	34	960	69	8	1213	250
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	38	38	38	55	55	55	18	18	18	18	18	18
Cap, veh/h	289	172	111	161	24	19	57	1849	133	28	1569	320
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.07	1.00	1.00	0.02	0.61	0.61
Sat Flow, veh/h	1004	759	489	477	106	86	1555	2936	211	1555	2566	524
Grp Volume(v), veh/h	204	0	74	39	0	0	34	507	522	8	729	734
Grp Sat Flow(s),veh/h/ln	1004	0	1249	668	0	0	1555	1552	1595	1555	1552	1539
Q Serve(g_s), s	13.6	0.0	5.8	4.0	0.0	0.0	2.5	0.0	0.0	0.6	41.3	42.5
Cycle Q Clear(g_c), s	23.5	0.0	5.8	9.8	0.0	0.0	2.5	0.0	0.0	0.6	41.3	42.5
Prop In Lane	1.00		0.39	0.74		0.13	1.00		0.13	1.00		0.34
Lane Grp Cap(c), veh/h	289	0	284	204	0	0	57	977	1005	28	949	941
V/C Ratio(X)	0.71	0.00	0.26	0.19	0.00	0.00	0.60	0.52	0.52	0.28	0.77	0.78
Avail Cap(c_a), veh/h	337	0	343	243	0	0	78	977	1005	78	949	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	44.9	0.0	38.1	41.0	0.0	0.0	54.8	0.0	0.0	58.1	17.1	17.3
Incr Delay (d2), s/veh	5.4	0.0	0.5	0.4	0.0	0.0	9.6	2.0	1.9	4.5	5.0	5.4
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	6.3	0.0	1.9	1.0	0.0	0.0	1.1	0.5	0.5	0.3	13.6	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	0.0	38.6	41.4	0.0	0.0	64.4	2.0	1.9	62.7	22.1	22.7
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	C	C
Approach Vol, veh/h	278		39				1063				1471	
Approach Delay, s/veh	47.2		41.4				3.9				22.7	
Approach LOS	D		D				A				C	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.2	80.6	32.2		9.4	78.4	32.2					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	65.0	32.0		5.0	65.0	32.0					
Max Q Clear Time (g_c+I1), s	2.6	2.0	25.5		4.5	44.5	11.8					
Green Ext Time (p_c), s	0.0	6.9	0.8		0.0	9.5	0.1					
Intersection Summary												
HCM 6th Ctrl Delay			18.3									
HCM 6th LOS			B									
Notes												

HCM 6th TWSC
9: S Riverside Ave & Singleton Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project AM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	11	1057	17	21	1250
Future Vol, veh/h	0	11	1057	17	21	1250
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	1057	17	21	1250
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	537	0	0	1074	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	488	-	-	645	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	488	-	-	645	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.5	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 488		645	-	
HCM Lane V/C Ratio	-	- 0.023		0.033	-	
HCM Control Delay (s)	-	- 12.5		10.8	-	
HCM Lane LOS	-	- B		B	-	
HCM 95th %tile Q(veh)	-	- 0.1		0.1	-	

HCM 6th Signalized Intersection Summary 10: S Riverside Ave & Agua Mansa Rd

Anglus Block Facility (Rialto, CA)

Existing + Growth + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	99	78	100	290	91	131	709	37	55	941	158
Future Volume (veh/h)	158	99	78	100	290	91	131	709	37	55	941	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1604	1604	1604	1678	1678	1678	1693	1693	1693	1737	1737	1737
Adj Flow Rate, veh/h	158	99	78	100	290	91	131	709	37	55	941	158
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	20	20	20	15	15	15	14	14	14	11	11	11
Cap, veh/h	193	305	259	134	354	109	167	1585	83	82	1503	670
Arrive On Green	0.13	0.19	0.19	0.08	0.15	0.15	0.10	0.51	0.51	0.10	0.91	0.91
Sat Flow, veh/h	1527	1604	1359	1598	2400	738	1612	3109	162	1654	3300	1472
Grp Volume(v), veh/h	158	99	78	100	191	190	131	367	379	55	941	158
Grp Sat Flow(s),veh/h/ln	1527	1604	1359	1598	1594	1545	1612	1608	1663	1654	1650	1472
Q Serve(g_s), s	12.1	6.4	5.9	7.3	13.9	14.4	9.5	17.4	17.4	3.9	7.1	1.5
Cycle Q Clear(g_c), s	12.1	6.4	5.9	7.3	13.9	14.4	9.5	17.4	17.4	3.9	7.1	1.5
Prop In Lane	1.00		1.00	1.00		0.48	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	193	305	259	134	235	228	167	820	848	82	1503	670
V/C Ratio(X)	0.82	0.32	0.30	0.75	0.81	0.83	0.78	0.45	0.45	0.67	0.63	0.24
Avail Cap(c_a), veh/h	255	334	283	186	252	245	215	820	848	138	1503	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	51.1	41.9	41.7	53.7	49.5	49.7	52.5	18.7	18.7	53.1	3.2	3.0
Incr Delay (d2), s/veh	14.4	0.6	0.6	9.9	16.8	20.4	13.3	1.8	1.7	9.2	2.0	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	5.3	2.5	2.0	3.2	6.5	6.7	4.3	6.3	6.5	1.7	1.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	42.5	42.4	63.6	66.3	70.1	65.7	20.4	20.4	62.3	5.2	3.8
LnGrp LOS	E	D	D	E	E	E	E	C	C	E	A	A
Approach Vol, veh/h		335			481			877			1154	
Approach Delay, s/veh		53.3			67.3			27.2			7.7	
Approach LOS		D			E			C			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	66.2	15.1	27.8	17.5	59.6	20.2	22.7				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	9.0	50.0	13.0	24.0	15.0	44.0	19.0	18.0				
Max Q Clear Time (g_c+I1), s	5.9	19.4	9.3	8.4	11.5	9.1	14.1	16.4				
Green Ext Time (p_c), s	0.0	4.2	0.1	0.6	0.1	7.3	0.2	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			29.2									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	35	31	91	134	19
Future Vol, veh/h	19	35	31	91	134	19
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	100	100	100	100	100	100
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	19	35	31	91	134	19
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	364	77	0	0	122	0
Stage 1	77	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	550	866	-	-	1215	-
Stage 1	838	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	489	866	-	-	1215	-
Mov Cap-2 Maneuver	489	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.7	0	7.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	681	1215	-	
HCM Lane V/C Ratio	-	-	0.079	0.11	-	
HCM Control Delay (s)	-	-	10.7	8.3	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.4	-	

Intersection						
Int Delay, s/veh	4.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	181	73	74	215	134	74
Future Vol, veh/h	181	73	74	215	134	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	181	73	74	215	134	74
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	254	0	581	218
Stage 1	-	-	-	-	218	-
Stage 2	-	-	-	-	363	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1311	-	476	822
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	704	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	449	822
Mov Cap-2 Maneuver	-	-	-	-	534	-
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	665	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		12.5	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	534	822	-	-	1311	-
HCM Lane V/C Ratio	0.251	0.09	-	-	0.056	-
HCM Control Delay (s)	14	9.8	-	-	7.9	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1	0.3	-	-	0.2	-

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Anglus Block Facility (Rialto, CA)

Existing + Growth + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	  			  	
Traffic Volume (veh/h)	98	263	495	194	306	131	590	1323	204	85	824	61
Future Volume (veh/h)	98	263	495	194	306	131	590	1323	204	85	824	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	263	495	194	306	131	590	1323	204	85	824	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	758	654	246	962	429	689	1572	242	128	1089	80
Arrive On Green	0.08	0.21	0.21	0.14	0.27	0.27	0.20	0.35	0.35	0.07	0.22	0.22
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4463	688	1781	4852	358
Grp Volume(v), veh/h	98	263	495	194	306	131	590	1009	518	85	577	308
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1747	1781	1702	1806
Q Serve(g_s), s	4.8	5.6	19.0	9.4	6.1	5.9	14.7	24.3	24.3	4.1	14.1	14.2
Cycle Q Clear(g_c), s	4.8	5.6	19.0	9.4	6.1	5.9	14.7	24.3	24.3	4.1	14.1	14.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.20
Lane Grp Cap(c), veh/h	144	758	654	246	962	429	689	1199	615	128	764	405
V/C Ratio(X)	0.68	0.35	0.76	0.79	0.32	0.31	0.86	0.84	0.84	0.66	0.76	0.76
Avail Cap(c_a), veh/h	200	758	654	260	962	429	698	1199	615	140	764	405
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(l)	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	39.8	29.8	22.3	37.1	25.9	25.8	34.4	26.6	26.6	40.3	32.3	32.3
Incr Delay (d2), s/veh	5.5	0.3	5.1	14.2	0.2	0.4	10.1	7.2	13.1	10.1	6.8	12.6
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	2.2	2.3	9.0	4.9	2.5	2.1	6.8	10.3	11.6	2.1	6.2	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.4	30.1	27.4	51.3	26.1	26.2	44.6	33.8	39.7	50.4	39.1	44.9
LnGrp LOS	D	C	C	D	C	C	D	C	D	D	D	D
Approach Vol, veh/h		856			631			2117			970	
Approach Delay, s/veh		30.3			33.9			38.3			41.9	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	36.4	17.3	24.0	22.8	25.0	12.2	29.1				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	6.0	30.0	12.0	18.0	17.0	19.0	9.0	21.0				
Max Q Clear Time (g_c+I1), s	6.1	26.3	11.4	21.0	16.7	16.2	6.8	8.1				
Green Ext Time (p_c), s	0.0	2.8	0.0	0.0	0.1	1.4	0.0	1.8				

Intersection Summary

HCM 6th Ctrl Delay 36.9

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

2: S Riverside Ave & I-10 WB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth + Project PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	666	3	521	362	1656	0	0	1202	418
Future Volume (veh/h)	0	0	0	666	3	521	362	1656	0	0	1202	418
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				1752	1752	1752	1841	1841	0	0	1856	1856
Adj Flow Rate, veh/h				829	0	348	362	1656	0	0	1202	418
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				10	10	10	4	4	0	0	3	3
Cap, veh/h				1068	0	475	498	2772	0	0	2177	536
Arrive On Green				0.32	0.00	0.32	0.15	0.55	0.00	0.00	0.34	0.34
Sat Flow, veh/h				3337	0	1485	3401	5191	0	0	6643	1572
Grp Volume(v), veh/h				829	0	348	362	1656	0	0	1202	418
Grp Sat Flow(s),veh/h/ln				1668	0	1485	1700	1675	0	0	1596	1572
Q Serve(g_s), s				17.5	0.0	16.2	7.9	17.2	0.0	0.0	11.9	18.6
Cycle Q Clear(g_c), s				17.5	0.0	16.2	7.9	17.2	0.0	0.0	11.9	18.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1068	0	475	498	2772	0	0	2177	536
V/C Ratio(X)				0.78	0.00	0.73	0.73	0.60	0.00	0.00	0.55	0.78
Avail Cap(c_a), veh/h				1584	0	705	654	2772	0	0	2177	536
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				24.0	0.0	23.5	31.8	11.7	0.0	0.0	20.9	23.1
Incr Delay (d2), s/veh				1.5	0.0	2.2	2.8	1.0	0.0	0.0	1.0	10.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.7	0.0	5.7	3.1	4.9	0.0	0.0	3.9	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.4	0.0	25.7	34.6	12.7	0.0	0.0	21.9	33.8
LnGrp LOS				C	A	C	C	B	A	A	C	C
Approach Vol, veh/h					1177			2018			1620	
Approach Delay, s/veh					25.5			16.6			24.9	
Approach LOS					C			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		48.0			16.4	31.6		30.0				
Change Period (Y+Rc), s		6.0			6.0	6.0		6.0				
Max Green Setting (Gmax), s		42.0			14.0	22.0		36.0				
Max Q Clear Time (g_c+I1), s		19.2			9.9	20.6		19.5				
Green Ext Time (p_c), s		11.7			0.5	1.1		4.4				
Intersection Summary												
HCM 6th Ctrl Delay				21.6								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  		  	  	
Traffic Volume (veh/h)	618	0	479	0	0	0	0	1423	681	481	1413	0
Future Volume (veh/h)	618	0	479	0	0	0	0	1423	681	481	1413	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	1767	1767	1767				0	1781	1781	1796	1796	0
Adj Flow Rate, veh/h	767	0	319				0	1423	681	481	1413	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	9	9	9				0	8	8	7	7	0
Cap, veh/h	785	0	349				0	1442	670	516	2237	0
Arrive On Green	0.23	0.00	0.23				0.00	0.44	0.44	0.16	0.66	0.00
Sat Flow, veh/h	3365	0	1497				0	3406	1507	3319	3503	0
Grp Volume(v), veh/h	767	0	319				0	1422	682	481	1413	0
Grp Sat Flow(s),veh/h/ln	1682	0	1497				0	1621	1510	1659	1706	0
Q Serve(g_s), s	20.4	0.0	18.7				0.0	39.0	40.0	12.9	21.9	0.0
Cycle Q Clear(g_c), s	20.4	0.0	18.7				0.0	39.0	40.0	12.9	21.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	785	0	349				0	1441	671	516	2237	0
V/C Ratio(X)	0.98	0.00	0.91				0.00	0.99	1.02	0.93	0.63	0.00
Avail Cap(c_a), veh/h	785	0	349				0	1441	671	516	2237	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	34.3	0.0	33.6				0.0	24.7	25.0	37.5	9.1	0.0
Incr Delay (d2), s/veh	26.4	0.0	27.5				0.0	20.7	39.0	23.9	1.4	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	11.0	0.0	9.3				0.0	16.6	19.2	6.5	6.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	0.0	61.1				0.0	45.4	64.0	61.4	10.5	0.0
LnGrp LOS	E	A	E				A	D	F	E	B	A
Approach Vol, veh/h	1086						2104			1894		
Approach Delay, s/veh	60.8						51.5			23.4		
Approach LOS	E						D			C		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	19.0	45.0	26.0		64.0							
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0							
Max Green Setting (Gmax), s	13.0	39.0	20.0		57.0							
Max Q Clear Time (g_c+I1), s	14.9	42.0	22.4		23.9							
Green Ext Time (p_c), s	0.0	0.0	0.0		11.7							
Intersection Summary												
HCM 6th Ctrl Delay	43.0											
HCM 6th LOS	D											
Notes												

HCM 6th Signalized Intersection Summary

4: S Riverside Ave & Slover Ave

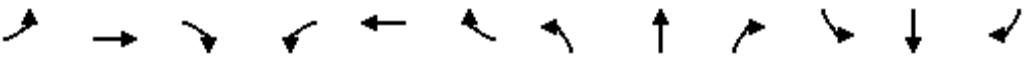
Anglus Block Facility (Rialto, CA)

Existing + Growth + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	431	124	157	36	31	76	41	1534	28	28	1561	298
Future Volume (veh/h)	431	124	157	36	31	76	41	1534	28	28	1561	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1411	1411	1411	1767	1767	1767	1707	1707	1707
Adj Flow Rate, veh/h	431	124	157	36	31	76	41	1534	28	28	1561	298
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	7	7	7	33	33	33	9	9	9	13	13	13
Cap, veh/h	387	530	449	283	395	353	80	1671	30	64	1332	248
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.05	0.50	0.50	0.04	0.49	0.49
Sat Flow, veh/h	1236	1796	1522	828	1340	1196	1682	3372	61	1626	2730	508
Grp Volume(v), veh/h	431	124	157	36	31	76	41	763	799	28	910	949
Grp Sat Flow(s),veh/h/ln	1236	1796	1522	828	1340	1196	1682	1678	1756	1626	1622	1616
Q Serve(g_s), s	21.8	4.6	7.1	3.0	1.5	4.2	2.1	37.0	37.2	1.5	43.0	43.0
Cycle Q Clear(g_c), s	26.0	4.6	7.1	7.6	1.5	4.2	2.1	37.0	37.2	1.5	43.0	43.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.31
Lane Grp Cap(c), veh/h	387	530	449	283	395	353	80	832	870	64	791	788
V/C Ratio(X)	1.11	0.23	0.35	0.13	0.08	0.22	0.52	0.92	0.92	0.44	1.15	1.20
Avail Cap(c_a), veh/h	387	530	449	283	395	353	114	832	870	111	791	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	23.5	24.4	26.4	22.4	23.4	41.0	20.6	20.6	41.4	22.6	22.6
Incr Delay (d2), s/veh	80.3	0.2	0.5	0.2	0.1	0.3	5.1	14.9	14.6	4.6	82.1	103.7
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	16.7	1.9	2.5	0.6	0.4	1.1	0.9	15.1	15.8	0.6	31.2	35.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.8	23.8	24.9	26.6	22.5	23.7	46.1	35.4	35.2	46.0	104.7	126.3
LnGrp LOS	F	C	C	C	C	C	D	D	D	D	F	F
Approach Vol, veh/h		712			143			1603			1887	
Approach Delay, s/veh		79.7			24.2			35.6			114.7	
Approach LOS		E			C			D			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	48.7		31.0	9.2	48.0		31.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	5.0	42.0		25.0	5.0	42.0		25.0				
Max Q Clear Time (g_c+I1), s	3.5	39.2		28.0	4.1	45.0		9.6				
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	0.0		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				76.8								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	111	16	99	40	20	68	91	1397	20	57	1609	81
Future Volume (veh/h)	111	16	99	40	20	68	91	1397	20	57	1609	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1633	1633	1633	1752	1752	1752	1707	1707	1707
Adj Flow Rate, veh/h	111	16	99	40	20	68	91	1397	20	57	1609	81
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	13	13	13	18	18	18	10	10	10	13	13	13
Cap, veh/h	182	30	117	265	325	275	116	1925	28	89	1755	88
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.07	0.57	0.57	0.05	0.56	0.56
Sat Flow, veh/h	602	153	589	1115	1633	1384	1668	3359	48	1626	3143	158
Grp Volume(v), veh/h	226	0	0	40	20	68	91	692	725	57	827	863
Grp Sat Flow(s),veh/h/ln	1343	0	0	1115	1633	1384	1668	1664	1743	1626	1622	1679
Q Serve(g_s), s	12.7	0.0	0.0	0.0	0.9	3.6	4.6	26.3	26.3	3.0	39.7	40.4
Cycle Q Clear(g_c), s	14.0	0.0	0.0	3.4	0.9	3.6	4.6	26.3	26.3	3.0	39.7	40.4
Prop In Lane	0.49		0.44	1.00		1.00	1.00		0.03	1.00		0.09
Lane Grp Cap(c), veh/h	329	0	0	265	325	275	116	954	999	89	906	938
V/C Ratio(X)	0.69	0.00	0.00	0.15	0.06	0.25	0.79	0.73	0.73	0.64	0.91	0.92
Avail Cap(c_a), veh/h	357	0	0	288	359	304	116	962	1008	113	938	971
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	0.0	0.0	29.1	28.1	29.2	39.6	13.5	13.5	40.0	17.2	17.4
Incr Delay (d2), s/veh	4.9	0.0	0.0	0.3	0.1	0.5	29.1	2.7	2.6	7.7	12.8	13.4
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	4.8	0.0	0.0	0.7	0.3	1.2	2.7	8.1	8.5	1.3	14.3	15.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	0.0	0.0	29.4	28.2	29.7	68.7	16.2	16.1	47.8	30.0	30.8
LnGrp LOS	D	A	A	C	C	C	E	B	B	D	C	C
Approach Vol, veh/h		226			128			1508			1747	
Approach Delay, s/veh		38.2			29.3			19.3			30.9	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	54.6		22.2	11.0	53.3		22.2				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	5.0	49.0		18.0	5.0	49.0		18.0				
Max Q Clear Time (g_c+I1), s	5.0	28.3		16.0	6.6	42.4		5.6				
Green Ext Time (p_c), s	0.0	8.8		0.2	0.0	4.9		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			26.5									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	134	1297	9	80	1695
Future Vol, veh/h	3	134	1297	9	80	1695
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	32	32	9	9	12	12
Mvmt Flow	3	134	1297	9	80	1695
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2310	653	0	0	1306	0
Stage 1	1302	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Critical Hdwy	7.44	7.54	-	-	4.34	-
Critical Hdwy Stg 1	6.44	-	-	-	-	-
Critical Hdwy Stg 2	6.44	-	-	-	-	-
Follow-up Hdwy	3.82	3.62	-	-	2.32	-
Pot Cap-1 Maneuver	21	345	-	-	475	-
Stage 1	169	-	-	-	-	-
Stage 2	253	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	17	345	-	-	475	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	169	-	-	-	-	-
Stage 2	210	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	23.8	0		0.6		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	326	475	-	
HCM Lane V/C Ratio	-	-	0.42	0.168	-	
HCM Control Delay (s)	-	-	23.8	14.1	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	2	0.6	-	

HCM 6th Signalized Intersection Summary 7: S Riverside Ave & Jurupa Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project PM

							
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	31	161	2	102	1259	1637	55
Future Volume (veh/h)	31	161	2	102	1259	1637	55
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00			1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	31	161		102	1259	1637	55
Peak Hour Factor	1.00	1.00		1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	243	217		151	2636	2156	72
Arrive On Green	0.14	0.14		0.08	0.74	0.61	0.61
Sat Flow, veh/h	1781	1585		1781	3647	3602	118
Grp Volume(v), veh/h	31	161		102	1259	826	866
Grp Sat Flow(s),veh/h/ln	1781	1585		1781	1777	1777	1849
Q Serve(g_s), s	1.3	8.0		4.6	11.7	27.6	27.9
Cycle Q Clear(g_c), s	1.3	8.0		4.6	11.7	27.6	27.9
Prop In Lane	1.00	1.00		1.00			0.06
Lane Grp Cap(c), veh/h	243	217		151	2636	1092	1136
V/C Ratio(X)	0.13	0.74		0.68	0.48	0.76	0.76
Avail Cap(c_a), veh/h	412	366		193	2636	1092	1136
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	34.1		36.6	4.2	11.4	11.5
Incr Delay (d2), s/veh	0.2	5.0		6.3	0.6	4.9	4.8
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.3		2.2	3.2	10.6	11.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.4	39.1		42.8	4.9	16.3	16.3
LnGrp LOS	C	D		D	A	B	B
Approach Vol, veh/h	192				1361	1692	
Approach Delay, s/veh	37.9				7.7	16.3	
Approach LOS	D				A	B	
Timer - Assigned Phs	2			4	5	6	
Phs Duration (G+Y+Rc), s	66.0			16.2	10.5	55.5	
Change Period (Y+Rc), s	6.0			6.0	4.5	6.0	
Max Green Setting (Gmax), s	60.0			18.0	7.9	47.6	
Max Q Clear Time (g_c+I1), s	13.7			10.0	6.6	29.9	
Green Ext Time (p_c), s	13.2			0.3	0.0	11.8	
Intersection Summary							
HCM 6th Ctrl Delay			14.0				
HCM 6th LOS			B				
Notes							

HCM 6th Signalized Intersection Summary 8: S Riverside Ave & Resource Dr/Industrial Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	48	74	51	6	6	28	1080	44	22	1222	249
Future Volume (veh/h)	253	48	74	51	6	6	28	1080	44	22	1222	249
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1648	1648	1648	1826	1826	1826	1737	1737	1737	1678	1678	1678
Adj Flow Rate, veh/h	253	48	74	51	6	6	28	1080	44	22	1222	249
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	17	17	17	5	5	5	11	11	11	15	15	15
Cap, veh/h	346	130	201	216	25	20	56	2012	82	48	1635	330
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	1.00	1.00	0.03	0.62	0.62
Sat Flow, veh/h	1236	585	901	726	114	88	1654	3232	132	1598	2642	533
Grp Volume(v), veh/h	253	0	122	63	0	0	28	551	573	22	733	738
Grp Sat Flow(s),veh/h/ln	1236	0	1486	928	0	0	1654	1650	1713	1598	1594	1582
Q Serve(g_s), s	9.9	0.0	8.3	4.5	0.0	0.0	2.0	0.0	0.0	1.6	38.9	40.0
Cycle Q Clear(g_c), s	22.7	0.0	8.3	12.8	0.0	0.0	2.0	0.0	0.0	1.6	38.9	40.0
Prop In Lane	1.00		0.61	0.81		0.10	1.00		0.08	1.00		0.34
Lane Grp Cap(c), veh/h	346	0	331	261	0	0	56	1027	1066	48	986	979
V/C Ratio(X)	0.73	0.00	0.37	0.24	0.00	0.00	0.50	0.54	0.54	0.46	0.74	0.75
Avail Cap(c_a), veh/h	411	0	409	329	0	0	83	1027	1066	80	986	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	44.9	0.0	39.5	43.8	0.0	0.0	55.0	0.0	0.0	57.2	16.1	16.4
Incr Delay (d2), s/veh	5.4	0.0	0.7	0.5	0.0	0.0	6.9	2.0	1.9	4.1	3.1	3.3
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	7.8	0.0	3.2	1.7	0.0	0.0	0.9	0.6	0.6	0.7	12.7	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	0.0	40.2	44.3	0.0	0.0	61.9	2.0	1.9	61.4	19.3	19.7
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	B	B
Approach Vol, veh/h	375			63			1152			1493		
Approach Delay, s/veh	47.0			44.3			3.4			20.1		
Approach LOS	D			D			A			C		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.6	79.7	31.7		9.0	79.3	31.7					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	65.0	32.0		5.0	65.0	32.0					
Max Q Clear Time (g_c+I1), s	3.6	2.0	24.7		4.0	42.0	14.8					
Green Ext Time (p_c), s	0.0	7.8	1.0		0.0	10.0	0.2					
Intersection Summary												
HCM 6th Ctrl Delay	17.6											
HCM 6th LOS	B											

HCM 6th TWSC
9: S Riverside Ave & Singleton Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project PM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Vol, veh/h	0	35	1132	7	9	1337
Future Vol, veh/h	0	35	1132	7	9	1337
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	1132	7	9	1337
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	570	0	0	1139	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	465	-	-	609	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	465	-	-	609	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	13.4	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 465		609	-	
HCM Lane V/C Ratio	-	- 0.075		0.015	-	
HCM Control Delay (s)	-	- 13.4		11	-	
HCM Lane LOS	-	- B		B	-	
HCM 95th %tile Q(veh)	-	- 0.2		0	-	

HCM 6th Signalized Intersection Summary 10: S Riverside Ave & Agua Mansa Rd

Anglus Block Facility (Rialto, CA)
Existing + Growth + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	423	184	76	175	115	132	764	82	113	1039	156
Future Volume (veh/h)	170	423	184	76	175	115	132	764	82	113	1039	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1767	1767	1767	1604	1604	1604	1767	1767	1767	1781	1781	1781
Adj Flow Rate, veh/h	170	423	184	76	175	115	132	764	82	113	1039	156
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	9	9	9	20	20	20	9	9	9	8	8	8
Cap, veh/h	210	468	396	105	376	234	169	1264	136	147	1352	603
Arrive On Green	0.12	0.26	0.26	0.07	0.21	0.21	0.10	0.41	0.41	0.17	0.80	0.80
Sat Flow, veh/h	1682	1767	1497	1527	1803	1122	1682	3058	328	1697	3385	1510
Grp Volume(v), veh/h	170	423	184	76	146	144	132	419	427	113	1039	156
Grp Sat Flow(s),veh/h/ln	1682	1767	1497	1527	1523	1402	1682	1678	1708	1697	1692	1510
Q Serve(g_s), s	11.8	27.8	12.4	5.9	10.1	10.8	9.2	23.4	23.5	7.6	19.2	3.1
Cycle Q Clear(g_c), s	11.8	27.8	12.4	5.9	10.1	10.8	9.2	23.4	23.5	7.6	19.2	3.1
Prop In Lane	1.00		1.00	1.00		0.80	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	210	468	396	105	318	292	169	694	706	147	1352	603
V/C Ratio(X)	0.81	0.90	0.46	0.73	0.46	0.49	0.78	0.60	0.60	0.77	0.77	0.26
Avail Cap(c_a), veh/h	294	501	424	115	318	292	182	694	706	156	1352	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	51.1	42.7	37.0	54.8	41.6	41.9	52.7	27.5	27.5	48.4	9.2	7.6
Incr Delay (d2), s/veh	10.9	19.1	0.8	18.6	1.0	1.3	18.1	3.9	3.8	19.5	4.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	14.1	4.5	2.7	3.8	3.7	4.6	9.4	9.6	3.7	3.9	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	61.8	37.8	73.4	42.6	43.2	70.7	31.4	31.3	67.9	13.4	8.6
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	B	A
Approach Vol, veh/h	777				366				978			
Approach Delay, s/veh	56.2				49.2				36.7			
Approach LOS	E				D				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	54.6	13.2	36.8	17.1	52.9	20.0	30.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	10.0	45.0	8.0	33.0	12.0	43.0	20.0	21.0				
Max Q Clear Time (g_c+I1), s	9.6	25.5	7.9	29.8	11.2	21.2	13.8	12.8				
Green Ext Time (p_c), s	0.0	4.5	0.0	1.0	0.0	7.3	0.2	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	35.1											
HCM 6th LOS	D											

Intersection						
Int Delay, s/veh	6.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	103	73	41	59	12
Future Vol, veh/h	54	103	73	41	59	12
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	100	100	100	100	100	100
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	54	103	73	41	59	12
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	224	94	0	0	114	0
Stage 1	94	-	-	-	-	-
Stage 2	130	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	669	846	-	-	1224	-
Stage 1	822	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	636	846	-	-	1224	-
Mov Cap-2 Maneuver	636	-	-	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11	0	6.7			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	760	1224	-	
HCM Lane V/C Ratio	-	-	0.207	0.048	-	
HCM Control Delay (s)	-	-	11	8.1	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.8	0.2	-	

Intersection

Int Delay, s/veh 3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	146	75	208	81	94
Future Vol, veh/h	275	146	75	208	81	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	275	146	75	208	81	94

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	421
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1138
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1138
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	484	695	-	-	1138	-
HCM Lane V/C Ratio	0.167	0.135	-	-	0.066	-
HCM Control Delay (s)	13.9	11	-	-	8.4	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.2	-

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Anglus Block Facility (Rialto, CA)

Existing + Growth + Cumulative AM

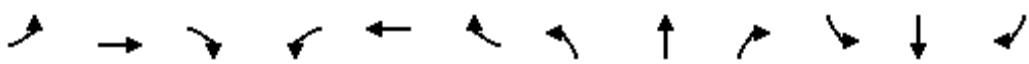
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	192	601	214	177	38	405	754	197	65	1255	30
Future Volume (veh/h)	38	192	601	214	177	38	405	754	197	65	1255	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	192	601	214	177	38	405	754	197	65	1255	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	750	564	218	1024	457	499	1563	404	103	1539	37
Arrive On Green	0.05	0.21	0.21	0.12	0.29	0.29	0.14	0.39	0.39	0.06	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4041	1045	1781	5130	123
Grp Volume(v), veh/h	38	192	601	214	177	38	405	634	317	65	833	452
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1682	1781	1702	1848
Q Serve(g_s), s	1.9	4.1	19.0	10.8	3.4	1.6	10.2	12.6	12.8	3.2	20.4	20.4
Cycle Q Clear(g_c), s	1.9	4.1	19.0	10.8	3.4	1.6	10.2	12.6	12.8	3.2	20.4	20.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.07
Lane Grp Cap(c), veh/h	80	750	564	218	1024	457	499	1316	650	103	1021	554
V/C Ratio(X)	0.47	0.26	1.07	0.98	0.17	0.08	0.81	0.48	0.49	0.63	0.82	0.82
Avail Cap(c_a), veh/h	119	750	564	218	1024	457	499	1316	650	158	1021	554
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	29.6	29.0	39.4	24.0	23.4	37.3	20.8	20.9	41.5	29.2	29.2
Incr Delay (d2), s/veh	4.2	0.2	56.8	55.9	0.1	0.1	9.8	1.3	2.6	6.2	7.2	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	20.5	8.0	1.4	0.6	4.9	5.1	5.3	1.6	9.1	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	29.8	85.8	95.4	24.1	23.4	47.1	22.1	23.5	47.7	36.4	41.7
LnGrp LOS	D	C	F	F	C	C	D	C	C	D	D	D
Approach Vol, veh/h		831			429			1356			1350	
Approach Delay, s/veh		71.1			59.6			29.9			38.7	
Approach LOS		E			E			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	39.8	16.0	24.0	18.0	32.0	9.1	30.9				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	31.0	10.0	18.0	12.0	26.0	5.0	23.0				
Max Q Clear Time (g_c+I1), s	5.2	14.8	12.8	21.0	12.2	22.4	3.9	5.4				
Green Ext Time (p_c), s	0.0	5.9	0.0	0.0	0.0	2.5	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			44.7									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

2: S Riverside Ave & I-10 WB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth + Cumulative AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	790	5	419	585	1111	0	0	1226	588
Future Volume (veh/h)	0	0	0	790	5	419	585	1111	0	0	1226	588
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				1737	1737	1737	1678	1678	0	0	1870	1870
Adj Flow Rate, veh/h				922	0	281	585	1111	0	0	1226	588
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				11	11	11	15	15	0	0	2	2
Cap, veh/h				1055	0	469	685	2600	0	0	1865	460
Arrive On Green				0.32	0.00	0.32	0.22	0.57	0.00	0.00	0.29	0.29
Sat Flow, veh/h				3309	0	1472	3100	4731	0	0	6696	1585
Grp Volume(v), veh/h				922	0	281	585	1111	0	0	1226	588
Grp Sat Flow(s),veh/h/ln				1654	0	1472	1550	1527	0	0	1609	1585
Q Serve(g_s), s				23.2	0.0	14.2	16.0	12.2	0.0	0.0	14.7	25.5
Cycle Q Clear(g_c), s				23.2	0.0	14.2	16.0	12.2	0.0	0.0	14.7	25.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1055	0	469	685	2600	0	0	1865	460
V/C Ratio(X)				0.87	0.00	0.60	0.85	0.43	0.00	0.00	0.66	1.28
Avail Cap(c_a), veh/h				1127	0	501	739	2600	0	0	1865	460
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.3	0.0	25.3	32.9	10.9	0.0	0.0	27.4	31.3
Incr Delay (d2), s/veh				7.5	0.0	1.8	9.1	0.5	0.0	0.0	1.8	141.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.9	0.0	5.0	6.3	3.3	0.0	0.0	5.3	26.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				35.8	0.0	27.0	42.0	11.4	0.0	0.0	29.3	173.0
LnGrp LOS				D	A	C	D	B	A	A	C	F
Approach Vol, veh/h					1203			1696			1814	
Approach Delay, s/veh					33.8			21.9			75.9	
Approach LOS					C			C			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.0			24.5	30.5		33.1				
Change Period (Y+Rc), s		6.0			6.0	6.0		6.0				
Max Green Setting (Gmax), s		49.0			20.0	23.0		29.0				
Max Q Clear Time (g_c+I1), s		14.2			18.0	27.5		25.2				
Green Ext Time (p_c), s		8.2			0.5	0.0		1.9				
Intersection Summary												
HCM 6th Ctrl Delay				45.7								
HCM 6th LOS				D								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	379	8	715	0	0	0	0	1314	673	426	1593	0
Future Volume (veh/h)	379	8	715	0	0	0	0	1314	673	426	1593	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	1693	1693	1693				0	1574	1574	1796	1796	0
Adj Flow Rate, veh/h	255	0	853				0	1314	673	426	1593	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14				0	22	22	7	7	0
Cap, veh/h	430	0	765				0	1241	578	443	2124	0
Arrive On Green	0.27	0.00	0.27				0.00	0.43	0.43	0.13	0.62	0.00
Sat Flow, veh/h	1612	0	2869				0	3006	1334	3319	3503	0
Grp Volume(v), veh/h	255	0	853				0	1314	673	426	1593	0
Grp Sat Flow(s),veh/h/ln	1612	0	1434				0	1432	1334	1659	1706	0
Q Serve(g_s), s	12.4	0.0	24.0				0.0	39.0	39.0	11.5	29.8	0.0
Cycle Q Clear(g_c), s	12.4	0.0	24.0				0.0	39.0	39.0	11.5	29.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	430	0	765				0	1241	578	443	2124	0
V/C Ratio(X)	0.59	0.00	1.12				0.00	1.06	1.16	0.96	0.75	0.00
Avail Cap(c_a), veh/h	430	0	765				0	1241	578	443	2124	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	28.7	0.0	33.0				0.0	25.5	25.5	38.8	12.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	68.9				0.0	42.6	91.7	33.2	2.5	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	4.9	0.0	15.4				0.0	18.4	25.1	6.3	8.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	0.0	101.9				0.0	68.1	117.2	72.0	14.5	0.0
LnGrp LOS	C	A	F				A	F	F	E	B	A
Approach Vol, veh/h	1108						1987			2019		
Approach Delay, s/veh	85.6						84.7			26.7		
Approach LOS	F						F			C		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.0	44.0		29.0		61.0						
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0						
Max Green Setting (Gmax), s	11.0	38.0		23.0		55.0						
Max Q Clear Time (g_c+I1), s	13.5	41.0		26.0		31.8						
Green Ext Time (p_c), s	0.0	0.0		0.0		11.9						
Intersection Summary												
HCM 6th Ctrl Delay	62.0											
HCM 6th LOS	E											
Notes												

HCM 6th Signalized Intersection Summary 4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	21	130	33	29	61	140	1433	30	44	1678	569
Future Volume (veh/h)	424	21	130	33	29	61	140	1433	30	44	1678	569
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1693	1693	1693	1455	1455	1455	1500	1500	1500	1722	1722	1722
Adj Flow Rate, veh/h	424	21	130	33	29	61	140	1433	30	44	1678	569
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14	30	30	30	27	27	27	12	12	12
Cap, veh/h	350	451	382	328	369	329	111	1480	31	79	1191	382
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.08	0.52	0.52	0.05	0.49	0.49
Sat Flow, veh/h	1182	1693	1434	962	1383	1233	1428	2854	60	1640	2437	781
Grp Volume(v), veh/h	424	21	130	33	29	61	140	715	748	44	1095	1152
Grp Sat Flow(s),veh/h/ln	1182	1693	1434	962	1383	1233	1428	1425	1489	1640	1636	1582
Q Serve(g_s), s	20.6	0.8	6.6	2.4	1.4	3.4	7.0	43.6	43.8	2.4	44.0	44.0
Cycle Q Clear(g_c), s	24.0	0.8	6.6	3.2	1.4	3.4	7.0	43.6	43.8	2.4	44.0	44.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.49
Lane Grp Cap(c), veh/h	350	451	382	328	369	329	111	739	772	79	800	773
V/C Ratio(X)	1.21	0.05	0.34	0.10	0.08	0.19	1.26	0.97	0.97	0.56	1.37	1.49
Avail Cap(c_a), veh/h	350	451	382	328	369	329	111	739	772	109	800	773
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	24.5	26.6	25.7	24.7	25.5	41.5	20.9	21.0	41.9	23.0	23.0
Incr Delay (d2), s/veh	118.5	0.0	0.5	0.1	0.1	0.3	170.8	25.2	24.9	6.0	173.9	227.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.0	0.3	2.2	0.5	0.4	1.0	7.6	16.7	17.4	1.0	52.4	62.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	155.5	24.5	27.1	25.8	24.8	25.7	212.3	46.2	45.9	47.9	196.9	250.5
LnGrp LOS	F	C	C	C	C	C	F	D	D	D	F	F
Approach Vol, veh/h	575				123				1603		2291	
Approach Delay, s/veh	121.7				25.5				60.6		221.0	
Approach LOS	F				C				E		F	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.3	51.7	29.0		12.0	49.0	29.0					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	44.0	23.0		6.0	43.0	23.0					
Max Q Clear Time (g_c+I1), s	4.4	45.8	26.0		9.0	46.0	5.4					
Green Ext Time (p_c), s	0.0	0.0	0.0		0.0	0.0	0.5					
Intersection Summary												
HCM 6th Ctrl Delay	147.3											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	349	79	122	55	74	125	99	1170	61	240	1243	295
Future Volume (veh/h)	349	79	122	55	74	125	99	1170	61	240	1243	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1411	1411	1411	625	625	625	1574	1574	1574	1678	1678	1678
Adj Flow Rate, veh/h	349	79	122	55	74	125	99	1170	61	240	1243	295
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	33	33	33	86	86	86	22	22	22	15	15	15
Cap, veh/h	252	42	65	230	236	200	100	996	52	178	997	233
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.07	0.34	0.34	0.11	0.39	0.39
Sat Flow, veh/h	495	112	173	395	625	530	1499	2891	151	1598	2563	600
Grp Volume(v), veh/h	550	0	0	55	74	125	99	605	626	240	766	772
Grp Sat Flow(s),veh/h/ln	781	0	0	395	625	530	1499	1495	1547	1598	1594	1570
Q Serve(g_s), s	26.5	0.0	0.0	0.0	7.5	17.3	5.9	31.0	31.0	10.0	35.0	35.0
Cycle Q Clear(g_c), s	34.0	0.0	0.0	9.0	7.5	17.3	5.9	31.0	31.0	10.0	35.0	35.0
Prop In Lane	0.63		0.22	1.00		1.00	1.00		0.10	1.00		0.38
Lane Grp Cap(c), veh/h	360	0	0	230	236	200	100	515	533	178	620	610
V/C Ratio(X)	1.53	0.00	0.00	0.24	0.31	0.62	0.99	1.17	1.18	1.35	1.24	1.26
Avail Cap(c_a), veh/h	360	0	0	230	236	200	100	515	533	178	620	610
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	0.0	0.0	20.2	19.8	22.8	42.0	29.5	29.5	40.0	27.5	27.5
Incr Delay (d2), s/veh	250.7	0.0	0.0	0.5	0.7	5.9	86.9	97.3	97.3	190.7	119.9	131.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.9	0.0	0.0	0.8	1.1	2.3	4.5	23.6	24.5	13.0	32.1	33.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	284.9	0.0	0.0	20.8	20.5	28.7	128.8	126.8	126.8	230.7	147.4	159.0
LnGrp LOS	F	A	A	C	C	C	F	F	F	F	F	F
Approach Vol, veh/h		550			254			1330			1778	
Approach Delay, s/veh		284.9			24.6			127.0			163.7	
Approach LOS		F			C			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	36.0		39.0	11.0	40.0		39.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	30.0		33.0	5.0	34.0		33.0				
Max Q Clear Time (g_c+I1), s	12.0	33.0		36.0	7.9	37.0		19.3				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			159.2									
HCM 6th LOS			F									

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	52	1157	7	69	1273
Future Vol, veh/h	0	52	1157	7	69	1273
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	59	59	20	20	15	15
Mvmt Flow	0	52	1157	7	69	1273
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1936	582	0	0	1164	0
Stage 1	1161	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Critical Hdwy	7.98	8.08	-	-	4.4	-
Critical Hdwy Stg 1	6.98	-	-	-	-	-
Critical Hdwy Stg 2	6.98	-	-	-	-	-
Follow-up Hdwy	4.09	3.89	-	-	2.35	-
Pot Cap-1 Maneuver	30	338	-	-	527	-
Stage 1	167	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	26	338	-	-	527	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	167	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	17.6	0		0.7		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	338	527	-	
HCM Lane V/C Ratio	-	-	0.154	0.131	-	
HCM Control Delay (s)	-	-	17.6	12.9	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	0.5	0.4	-	

HCM 6th Signalized Intersection Summary 7: S Riverside Ave & Jurupa Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative AM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	141	80	1136	1258	79
Future Volume (veh/h)	59	141	80	1136	1258	79
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	141	80	1136	1258	79
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	376	335	178	2409	1773	111
Arrive On Green	0.21	0.21	0.10	0.68	0.52	0.52
Sat Flow, veh/h	1781	1585	1781	3647	3489	213
Grp Volume(v), veh/h	59	141	80	1136	657	680
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1832
Q Serve(g_s), s	2.4	6.9	3.8	13.6	25.2	25.4
Cycle Q Clear(g_c), s	2.4	6.9	3.8	13.6	25.2	25.4
Prop In Lane	1.00	1.00	1.00			0.12
Lane Grp Cap(c), veh/h	376	335	178	2409	928	957
V/C Ratio(X)	0.16	0.42	0.45	0.47	0.71	0.71
Avail Cap(c_a), veh/h	376	335	178	2409	928	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	30.7	38.2	6.9	16.3	16.3
Incr Delay (d2), s/veh	0.9	3.9	8.0	0.7	4.6	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	6.7	2.0	4.5	10.6	11.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.9	34.6	46.1	7.5	20.9	20.8
LnGrp LOS	C	C	D	A	C	C
Approach Vol, veh/h	200			1216	1337	
Approach Delay, s/veh	33.2			10.1	20.8	
Approach LOS	C			B	C	
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	66.0		24.0		14.0	52.0
Change Period (Y+Rc), s	6.0		6.0		6.0	6.0
Max Green Setting (Gmax), s	60.0		18.0		8.0	46.0
Max Q Clear Time (g_c+I1), s	15.6		8.9		5.8	27.4
Green Ext Time (p_c), s	11.2		0.4		0.0	9.3
Intersection Summary						
HCM 6th Ctrl Delay			17.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary 8: S Riverside Ave & Resource Dr/Industrial Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	40	29	15	3	5	34	1024	24	8	1270	250
Future Volume (veh/h)	204	40	29	15	3	5	34	1024	24	8	1270	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1337	1337	1337	1085	1085	1085	1633	1633	1633	1633	1633	1633
Adj Flow Rate, veh/h	204	40	29	15	3	5	34	1024	24	8	1270	250
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	38	38	38	55	55	55	18	18	18	18	18	18
Cap, veh/h	288	163	118	148	27	35	57	1954	46	28	1585	309
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.07	1.00	1.00	0.02	0.61	0.61
Sat Flow, veh/h	1006	720	522	434	119	154	1555	3099	73	1555	2590	504
Grp Volume(v), veh/h	204	0	69	23	0	0	34	513	535	8	756	764
Grp Sat Flow(s),veh/h/ln	1006	0	1243	706	0	0	1555	1552	1620	1555	1552	1542
Q Serve(g_s), s	16.7	0.0	5.5	1.4	0.0	0.0	2.5	0.0	0.0	0.6	44.2	45.8
Cycle Q Clear(g_c), s	23.6	0.0	5.5	6.9	0.0	0.0	2.5	0.0	0.0	0.6	44.2	45.8
Prop In Lane	1.00		0.42	0.65		0.22	1.00		0.04	1.00		0.33
Lane Grp Cap(c), veh/h	288	0	281	210	0	0	57	978	1022	28	950	944
V/C Ratio(X)	0.71	0.00	0.25	0.11	0.00	0.00	0.60	0.52	0.52	0.28	0.80	0.81
Avail Cap(c_a), veh/h	320	0	321	236	0	0	78	978	1022	78	950	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.66	0.66	0.66
Uniform Delay (d), s/veh	45.0	0.0	38.0	38.6	0.0	0.0	54.8	0.0	0.0	58.1	17.6	17.9
Incr Delay (d2), s/veh	6.3	0.0	0.4	0.2	0.0	0.0	9.6	2.0	1.9	3.6	4.6	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	1.7	0.6	0.0	0.0	1.1	0.5	0.5	0.3	14.4	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	0.0	38.5	38.8	0.0	0.0	64.4	2.0	1.9	61.7	22.2	23.0
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	C	C
Approach Vol, veh/h	273			23			1082			1528		
Approach Delay, s/veh	48.1			38.8			3.9			22.8		
Approach LOS	D			D			A			C		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.2	80.7	32.2		9.4	78.4	32.2					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	67.0	30.0		5.0	67.0	30.0					
Max Q Clear Time (g_c+I1), s	2.6	2.0	25.6		4.5	47.8	8.9					
Green Ext Time (p_c), s	0.0	7.1	0.6		0.0	9.6	0.1					
Intersection Summary												
HCM 6th Ctrl Delay	18.3											
HCM 6th LOS	B											

HCM 6th TWSC
9: S Riverside Ave & Singleton Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative AM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	11	1076	17	21	1293
Future Vol, veh/h	0	11	1076	17	21	1293
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	1076	17	21	1293
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	547	0	0	1093	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	481	-	-	634	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	481	-	-	634	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.7	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 481		634	-	
HCM Lane V/C Ratio	-	- 0.023		0.033	-	
HCM Control Delay (s)	-	- 12.7		10.9	-	
HCM Lane LOS	-	- B		B	-	
HCM 95th %tile Q(veh)	-	- 0.1		0.1	-	

HCM 6th Signalized Intersection Summary
10: S Riverside Ave & Agua Mansa Rd

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	99	78	100	290	83	131	749	37	53	990	154
Future Volume (veh/h)	145	99	78	100	290	83	131	749	37	53	990	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1604	1604	1604	1678	1678	1678	1693	1693	1693	1737	1737	1737
Adj Flow Rate, veh/h	145	99	78	100	290	83	131	749	37	53	990	154
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	20	20	20	15	15	15	14	14	14	11	11	11
Cap, veh/h	180	287	243	134	357	100	167	1629	80	79	1540	687
Arrive On Green	0.12	0.18	0.18	0.08	0.15	0.15	0.10	0.52	0.52	0.10	0.93	0.93
Sat Flow, veh/h	1527	1604	1359	1598	2457	690	1612	3119	154	1654	3300	1472
Grp Volume(v), veh/h	145	99	78	100	186	187	131	386	400	53	990	154
Grp Sat Flow(s),veh/h/ln	1527	1604	1359	1598	1594	1553	1612	1608	1665	1654	1650	1472
Q Serve(g_s), s	11.1	6.5	6.0	7.3	13.6	14.0	9.5	18.1	18.1	3.7	6.0	1.1
Cycle Q Clear(g_c), s	11.1	6.5	6.0	7.3	13.6	14.0	9.5	18.1	18.1	3.7	6.0	1.1
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	180	287	243	134	231	225	167	840	870	79	1540	687
V/C Ratio(X)	0.81	0.34	0.32	0.75	0.81	0.83	0.78	0.46	0.46	0.67	0.64	0.22
Avail Cap(c_a), veh/h	242	321	272	186	252	246	215	840	870	124	1540	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	51.6	43.1	42.9	53.7	49.6	49.8	52.5	18.0	18.0	53.3	2.3	2.2
Incr Delay (d2), s/veh	13.4	0.7	0.8	9.9	16.0	19.2	13.3	1.8	1.7	9.3	2.1	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	4.8	2.6	2.0	3.2	6.3	6.5	4.3	6.5	6.7	1.6	1.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	43.8	43.6	63.6	65.7	69.1	65.7	19.8	19.8	62.7	4.4	2.9
LnGrp LOS	E	D	D	E	E	E	E	B	B	E	A	A
Approach Vol, veh/h		322			473			917			1197	
Approach Delay, s/veh		53.3			66.6			26.3			6.8	
Approach LOS		D			E			C			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	67.7	15.1	26.5	17.5	61.0	19.1	22.4				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	8.0	52.0	13.0	23.0	15.0	45.0	18.0	18.0				
Max Q Clear Time (g_c+I1), s	5.7	20.1	9.3	8.5	11.5	8.0	13.1	16.0				
Green Ext Time (p_c), s	0.0	4.5	0.1	0.6	0.1	7.9	0.1	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			27.8									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	5	31	40	34	19
Future Vol, veh/h	4	5	31	40	34	19
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	100	100	100	100	100	100
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	4	5	31	40	34	19
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	138	51	0	0	71	0
Stage 1	51	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	754	896	-	-	1273	-
Stage 1	862	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	734	896	-	-	1273	-
Mov Cap-2 Maneuver	734	-	-	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		5.1		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		816	1273	-
HCM Lane V/C Ratio	-	-		0.011	0.027	-
HCM Control Delay (s)	-	-		9.5	7.9	0
HCM Lane LOS	-	-		A	A	A
HCM 95th %tile Q(veh)	-	-		0	0.1	-

Intersection						
Int Delay, s/veh	4.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	181	73	72	215	134	69
Future Vol, veh/h	181	73	72	215	134	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	181	73	72	215	134	69
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	254	0	577	218
Stage 1	-	-	-	-	218	-
Stage 2	-	-	-	-	359	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1311	-	478	822
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	452	822
Mov Cap-2 Maneuver	-	-	-	-	537	-
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	668	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		12.5	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	537	822	-	-	1311	-
HCM Lane V/C Ratio	0.25	0.084	-	-	0.055	-
HCM Control Delay (s)	13.9	9.8	-	-	7.9	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1	0.3	-	-	0.2	-

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Anglus Block Facility (Rialto, CA)

Existing + Growth + Cumulative PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	  			  	
Traffic Volume (veh/h)	98	263	526	226	306	131	620	1374	231	85	918	61
Future Volume (veh/h)	98	263	526	226	306	131	620	1374	231	85	918	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	263	526	226	306	131	620	1374	231	85	918	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	750	634	257	977	436	653	1565	263	119	1141	76
Arrive On Green	0.08	0.21	0.21	0.14	0.27	0.27	0.19	0.36	0.36	0.07	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4402	740	1781	4892	324
Grp Volume(v), veh/h	98	263	526	226	306	131	620	1062	543	85	638	341
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1737	1781	1702	1812
Q Serve(g_s), s	4.8	5.7	19.0	11.2	6.1	5.9	16.0	26.3	26.3	4.2	15.9	16.0
Cycle Q Clear(g_c), s	4.8	5.7	19.0	11.2	6.1	5.9	16.0	26.3	26.3	4.2	15.9	16.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		0.18
Lane Grp Cap(c), veh/h	144	750	634	257	977	436	653	1210	618	119	794	423
V/C Ratio(X)	0.68	0.35	0.83	0.88	0.31	0.30	0.95	0.88	0.88	0.72	0.80	0.81
Avail Cap(c_a), veh/h	198	750	634	257	977	436	653	1210	618	119	794	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	30.2	24.2	37.7	25.9	25.8	36.1	27.2	27.2	41.2	32.6	32.6
Incr Delay (d2), s/veh	5.6	0.3	9.1	27.3	0.2	0.4	23.5	9.2	16.2	18.5	8.5	15.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.4	11.1	6.7	2.6	2.2	8.7	11.7	13.2	2.4	7.3	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	30.5	33.3	65.0	26.1	26.2	59.6	36.3	43.4	59.7	41.0	47.7
LnGrp LOS	D	C	C	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		887			663			2225			1064	
Approach Delay, s/veh		33.9			39.4			44.5			44.6	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	37.0	18.0	24.0	22.0	26.0	12.3	29.7				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	31.0	12.0	18.0	16.0	20.0	9.0	21.0				
Max Q Clear Time (g_c+I1), s	6.2	28.3	13.2	21.0	18.0	18.0	6.8	8.1				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.0	0.0	1.2	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			41.9									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

2: S Riverside Ave & I-10 WB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth + Cumulative PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	847	3	535	546	1762	0	0	1340	448
Future Volume (veh/h)	0	0	0	847	3	535	546	1762	0	0	1340	448
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				1752	1752	1752	1841	1841	0	0	1856	1856
Adj Flow Rate, veh/h				1015	0	358	546	1762	0	0	1340	448
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				10	10	10	4	4	0	0	3	3
Cap, veh/h				1181	0	525	657	2667	0	0	1786	440
Arrive On Green				0.35	0.00	0.35	0.19	0.53	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3337	0	1485	3401	5191	0	0	6643	1572
Grp Volume(v), veh/h				1015	0	358	546	1762	0	0	1340	448
Grp Sat Flow(s),veh/h/ln				1668	0	1485	1700	1675	0	0	1596	1572
Q Serve(g_s), s				24.5	0.0	17.8	13.4	22.0	0.0	0.0	16.6	24.2
Cycle Q Clear(g_c), s				24.5	0.0	17.8	13.4	22.0	0.0	0.0	16.6	24.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1181	0	525	657	2667	0	0	1786	440
V/C Ratio(X)				0.86	0.00	0.68	0.83	0.66	0.00	0.00	0.75	1.02
Avail Cap(c_a), veh/h				1309	0	582	706	2667	0	0	1786	440
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				26.0	0.0	23.8	33.6	14.7	0.0	0.0	28.5	31.2
Incr Delay (d2), s/veh				5.6	0.0	2.8	7.8	1.3	0.0	0.0	3.0	47.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.1	0.0	6.4	5.7	6.9	0.0	0.0	6.0	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				31.5	0.0	26.7	41.5	16.0	0.0	0.0	31.4	78.9
LnGrp LOS				C	A	C	D	B	A	A	C	F
Approach Vol, veh/h					1373			2308			1788	
Approach Delay, s/veh					30.3			22.0			43.3	
Approach LOS					C			C			D	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	51.0			21.8			29.2			35.7		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	45.0			17.0			22.0			33.0		
Max Q Clear Time (g_c+I1), s	24.0			15.4			26.2			26.5		
Green Ext Time (p_c), s	12.0			0.4			0.0			3.2		
Intersection Summary												
HCM 6th Ctrl Delay				31.1								
HCM 6th LOS				C								
Notes												

HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  		  	 	
Traffic Volume (veh/h)	632	0	674	0	0	0	0	1703	872	511	1715	0
Future Volume (veh/h)	632	0	674	0	0	0	0	1703	872	511	1715	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	1767	1767	1767				0	1781	1781	1796	1796	0
Adj Flow Rate, veh/h	848	0	442				0	1703	872	511	1715	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	9	9	9				0	8	8	7	7	0
Cap, veh/h	823	0	366				0	1513	705	406	2199	0
Arrive On Green	0.24	0.00	0.24				0.00	0.47	0.47	0.12	0.64	0.00
Sat Flow, veh/h	3365	0	1497				0	3403	1510	3319	3503	0
Grp Volume(v), veh/h	848	0	442				0	1703	872	511	1715	0
Grp Sat Flow(s),veh/h/ln	1682	0	1497				0	1621	1510	1659	1706	0
Q Serve(g_s), s	22.0	0.0	22.0				0.0	42.0	42.0	11.0	32.3	0.0
Cycle Q Clear(g_c), s	22.0	0.0	22.0				0.0	42.0	42.0	11.0	32.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	823	0	366				0	1513	705	406	2199	0
V/C Ratio(X)	1.03	0.00	1.21				0.00	1.13	1.24	1.26	0.78	0.00
Avail Cap(c_a), veh/h	823	0	366				0	1513	705	406	2199	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	34.0	0.0	34.0				0.0	24.0	24.0	39.5	11.4	0.0
Incr Delay (d2), s/veh	39.6	0.0	116.4				0.0	65.7	118.9	135.5	2.8	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	13.2	0.0	19.6				0.0	27.0	35.6	11.8	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.6	0.0	150.4				0.0	89.7	142.9	175.0	14.3	0.0
LnGrp LOS	F	A	F				A	F	F	F	B	A
Approach Vol, veh/h	1290						2575			2226		
Approach Delay, s/veh	99.9						107.7			51.1		
Approach LOS	F						F			D		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.0	47.0		27.0		63.0						
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0						
Max Green Setting (Gmax), s	10.0	41.0		21.0		57.0						
Max Q Clear Time (g_c+l1), s	13.0	44.0		24.0		34.3						
Green Ext Time (p_c), s	0.0	0.0		0.0		12.8						
Intersection Summary												
HCM 6th Ctrl Delay			85.4									
HCM 6th LOS			F									
Notes												

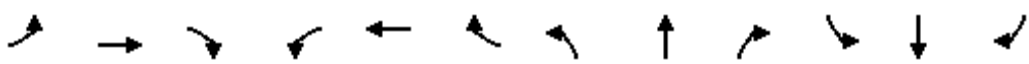
HCM 6th Signalized Intersection Summary 4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	566	124	207	35	31	82	81	1768	26	58	1906	422
Future Volume (veh/h)	566	124	207	35	31	82	81	1768	26	58	1906	422
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1796	1796	1796	1411	1411	1411	1767	1767	1767	1707	1707	1707
Adj Flow Rate, veh/h	566	124	207	35	31	82	81	1768	26	58	1906	422
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	7	7	7	33	33	33	9	9	9	13	13	13
Cap, veh/h	415	579	491	295	432	385	112	1545	23	89	1182	252
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.07	0.46	0.46	0.05	0.44	0.44
Sat Flow, veh/h	1229	1796	1522	791	1340	1196	1682	3386	50	1626	2660	567
Grp Volume(v), veh/h	566	124	207	35	31	82	81	875	919	58	1134	1194
Grp Sat Flow(s),veh/h/ln	1229	1796	1522	791	1340	1196	1682	1678	1758	1626	1622	1605
Q Serve(g_s), s	24.5	4.5	9.6	3.0	1.4	4.5	4.2	41.1	41.1	3.1	40.0	40.0
Cycle Q Clear(g_c), s	29.0	4.5	9.6	7.6	1.4	4.5	4.2	41.1	41.1	3.1	40.0	40.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.35
Lane Grp Cap(c), veh/h	415	579	491	295	432	385	112	766	802	89	721	713
V/C Ratio(X)	1.36	0.21	0.42	0.12	0.07	0.21	0.72	1.14	1.15	0.65	1.57	1.67
Avail Cap(c_a), veh/h	415	579	491	295	432	385	112	766	802	108	721	713
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	22.2	23.9	25.0	21.2	22.2	41.2	24.5	24.5	41.7	25.0	25.0
Incr Delay (d2), s/veh	179.1	0.2	0.6	0.2	0.1	0.3	20.3	79.3	80.3	9.6	264.7	309.2
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	29.5	1.8	3.3	0.6	0.4	1.2	2.3	30.4	32.1	1.4	65.8	73.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	214.2	22.4	24.5	25.1	21.2	22.5	61.4	103.8	104.8	51.3	289.7	334.2
LnGrp LOS	F	C	C	C	C	C	E	F	F	D	F	F
Approach Vol, veh/h	897			148			1875			2386		
Approach Delay, s/veh	143.9			22.8			102.4			306.1		
Approach LOS	F			C			F			F		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.9	46.1	34.0		11.0	45.0	34.0					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	39.0	28.0		5.0	39.0	28.0					
Max Q Clear Time (g_c+l1), s	5.1	43.1	31.0		6.2	42.0	9.6					
Green Ext Time (p_c), s	0.0	0.0	0.0		0.0	0.0	0.7					
Intersection Summary												
HCM 6th Ctrl Delay	198.8											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	252	34	146	67	20	117	100	1477	41	185	1675	246
Future Volume (veh/h)	252	34	146	67	20	117	100	1477	41	185	1675	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1633	1633	1633	1752	1752	1752	1707	1707	1707
Adj Flow Rate, veh/h	252	34	146	67	20	117	100	1477	41	185	1675	246
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	13	13	13	18	18	18	10	10	10	13	13	13
Cap, veh/h	245	25	105	324	417	354	111	1507	42	199	1455	209
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.07	0.46	0.46	0.12	0.51	0.51
Sat Flow, veh/h	712	96	412	1051	1633	1384	1668	3308	92	1626	2847	408
Grp Volume(v), veh/h	432	0	0	67	20	117	100	742	776	185	937	984
Grp Sat Flow(s),veh/h/ln	1220	0	0	1051	1633	1384	1668	1664	1735	1626	1622	1634
Q Serve(g_s), s	22.2	0.0	0.0	0.0	0.8	6.2	5.4	39.4	39.6	10.1	46.0	46.0
Cycle Q Clear(g_c), s	23.0	0.0	0.0	5.0	0.8	6.2	5.4	39.4	39.6	10.1	46.0	46.0
Prop In Lane	0.58		0.34	1.00		1.00	1.00		0.05	1.00		0.25
Lane Grp Cap(c), veh/h	375	0	0	324	417	354	111	758	791	199	829	835
V/C Ratio(X)	1.15	0.00	0.00	0.21	0.05	0.33	0.90	0.98	0.98	0.93	1.13	1.18
Avail Cap(c_a), veh/h	375	0	0	324	417	354	111	758	791	199	829	835
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	0.0	0.0	26.8	25.2	27.2	41.7	24.1	24.1	39.1	22.0	22.0
Incr Delay (d2), s/veh	94.5	0.0	0.0	0.3	0.0	0.5	54.9	27.4	27.4	44.7	73.6	92.6
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	18.0	0.0	0.0	1.1	0.3	2.0	3.8	18.6	19.5	6.2	30.9	35.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	130.3	0.0	0.0	27.1	25.3	27.8	96.6	51.4	51.5	83.8	95.6	114.6
LnGrp LOS	F	A	A	C	C	C	F	D	D	F	F	F
Approach Vol, veh/h		432			204			1618			2106	
Approach Delay, s/veh		130.3			27.3			54.3			103.4	
Approach LOS		F			C			D			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	46.0		28.0	11.0	51.0		28.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	40.0		22.0	5.0	45.0		22.0				
Max Q Clear Time (g_c+I1), s	12.1	41.6		25.0	7.4	48.0		8.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			84.3									
HCM 6th LOS			F									

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	51	1402	9	55	1808
Future Vol, veh/h	3	51	1402	9	55	1808
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	32	32	9	9	12	12
Mvmt Flow	3	51	1402	9	55	1808
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2421	706	0	0	1411	0
Stage 1	1407	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Critical Hdwy	7.44	7.54	-	-	4.34	-
Critical Hdwy Stg 1	6.44	-	-	-	-	-
Critical Hdwy Stg 2	6.44	-	-	-	-	-
Follow-up Hdwy	3.82	3.62	-	-	2.32	-
Pot Cap-1 Maneuver	18	317	-	-	431	-
Stage 1	146	-	-	-	-	-
Stage 2	251	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	16	317	-	-	431	-
Mov Cap-2 Maneuver	87	-	-	-	-	-
Stage 1	146	-	-	-	-	-
Stage 2	219	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	21.2	0		0.4		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	276	431	-	
HCM Lane V/C Ratio	-	-	0.196	0.128	-	
HCM Control Delay (s)	-	-	21.2	14.6	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	0.7	0.4	-	

HCM 6th Signalized Intersection Summary

7: S Riverside Ave & Jurupa Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative PM

							
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	31	163	2	102	1371	1754	83
Future Volume (veh/h)	31	163	2	102	1371	1754	83
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00			1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	31	163		102	1371	1754	83
Peak Hour Factor	1.00	1.00		1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	246	219		149	2632	2123	100
Arrive On Green	0.14	0.14		0.08	0.74	0.61	0.61
Sat Flow, veh/h	1781	1585		1781	3647	3549	162
Grp Volume(v), veh/h	31	163		102	1371	896	941
Grp Sat Flow(s),veh/h/ln	1781	1585		1781	1777	1777	1841
Q Serve(g_s), s	1.3	8.1		4.6	13.4	32.3	33.2
Cycle Q Clear(g_c), s	1.3	8.1		4.6	13.4	32.3	33.2
Prop In Lane	1.00	1.00		1.00			0.09
Lane Grp Cap(c), veh/h	246	219		149	2632	1092	1131
V/C Ratio(X)	0.13	0.75		0.68	0.52	0.82	0.83
Avail Cap(c_a), veh/h	411	366		149	2632	1092	1131
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	34.1		36.7	4.5	12.4	12.5
Incr Delay (d2), s/veh	0.2	5.0		12.1	0.7	7.0	7.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	7.2		2.5	3.7	12.8	13.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.4	39.1		48.8	5.3	19.3	19.7
LnGrp LOS	C	D		D	A	B	B
Approach Vol, veh/h	194				1473	1837	
Approach Delay, s/veh	37.9				8.3	19.5	
Approach LOS	D				A	B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		66.0		16.4	10.4	55.6	
Change Period (Y+Rc), s		6.0		6.0	4.5	6.0	
Max Green Setting (Gmax), s		60.0		18.0	5.9	49.6	
Max Q Clear Time (g_c+l1), s		15.4		10.1	6.6	35.2	
Green Ext Time (p_c), s		15.0		0.3	0.0	10.9	
Intersection Summary							
HCM 6th Ctrl Delay			15.8				
HCM 6th LOS			B				
Notes							

HCM 6th Signalized Intersection Summary 8: S Riverside Ave & Resource Dr/Industrial Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	46	74	7	1	6	28	1135	24	22	1282	249
Future Volume (veh/h)	253	46	74	7	1	6	28	1135	24	22	1282	249
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1648	1648	1648	1826	1826	1826	1737	1737	1737	1678	1678	1678
Adj Flow Rate, veh/h	253	46	74	7	1	6	28	1135	24	22	1282	249
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	17	17	17	5	5	5	11	11	11	15	15	15
Cap, veh/h	344	136	219	165	33	115	56	2001	42	48	1605	308
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.07	1.00	1.00	0.03	0.60	0.60
Sat Flow, veh/h	1241	569	915	501	139	480	1654	3305	70	1598	2667	512
Grp Volume(v), veh/h	253	0	120	14	0	0	28	567	592	22	761	770
Grp Sat Flow(s),veh/h/ln	1241	0	1483	1120	0	0	1654	1650	1724	1598	1594	1585
Q Serve(g_s), s	16.9	0.0	8.0	0.1	0.0	0.0	2.0	0.0	0.0	1.6	43.6	45.2
Cycle Q Clear(g_c), s	25.0	0.0	8.0	8.1	0.0	0.0	2.0	0.0	0.0	1.6	43.6	45.2
Prop In Lane	1.00		0.62	0.50		0.43	1.00		0.04	1.00		0.32
Lane Grp Cap(c), veh/h	344	0	355	313	0	0	56	999	1044	48	959	954
V/C Ratio(X)	0.74	0.00	0.34	0.04	0.00	0.00	0.50	0.57	0.57	0.46	0.79	0.81
Avail Cap(c_a), veh/h	388	0	408	363	0	0	83	999	1044	80	959	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	44.6	0.0	37.7	35.1	0.0	0.0	55.0	0.0	0.0	57.2	18.2	18.5
Incr Delay (d2), s/veh	6.3	0.0	0.6	0.1	0.0	0.0	6.9	2.3	2.2	4.7	4.7	5.2
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	7.9	0.0	3.0	0.3	0.0	0.0	0.9	0.6	0.6	0.7	14.7	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	0.0	38.3	35.2	0.0	0.0	61.9	2.3	2.2	61.9	22.9	23.7
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	C	C
Approach Vol, veh/h	373		14				1187		1553			
Approach Delay, s/veh	46.8		35.2				3.7		23.8			
Approach LOS	D		D				A		C			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.6	77.6	33.8		9.0	77.2	33.8					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	65.0	32.0		5.0	65.0	32.0					
Max Q Clear Time (g_c+I1), s	3.6	2.0	27.0		4.0	47.2	10.1					
Green Ext Time (p_c), s	0.0	8.2	0.8		0.0	9.3	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	19.0											
HCM 6th LOS	B											

HCM 6th TWSC
9: S Riverside Ave & Singleton Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative PM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Vol, veh/h	0	35	1167	7	9	1353
Future Vol, veh/h	0	35	1167	7	9	1353
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	1167	7	9	1353
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	587	0	0	1174	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	453	-	-	591	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	453	-	-	591	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	13.6	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	453	591	-	
HCM Lane V/C Ratio	-	-	0.077	0.015	-	
HCM Control Delay (s)	-	-	13.6	11.2	-	
HCM Lane LOS	-	-	B	B	-	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

HCM 6th Signalized Intersection Summary 10: S Riverside Ave & Agua Mansa Rd

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	423	184	76	175	111	132	809	82	105	1075	144
Future Volume (veh/h)	165	423	184	76	175	111	132	809	82	105	1075	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1767	1767	1767	1604	1604	1604	1767	1767	1767	1781	1781	1781
Adj Flow Rate, veh/h	165	423	184	76	175	111	132	809	82	105	1075	144
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	9	9	9	20	20	20	9	9	9	8	8	8
Cap, veh/h	205	468	396	105	387	233	169	1287	130	139	1352	603
Arrive On Green	0.12	0.26	0.26	0.07	0.21	0.21	0.10	0.42	0.42	0.16	0.80	0.80
Sat Flow, veh/h	1682	1767	1497	1527	1829	1100	1682	3077	312	1697	3385	1510
Grp Volume(v), veh/h	165	423	184	76	144	142	132	441	450	105	1075	144
Grp Sat Flow(s),veh/h/ln	1682	1767	1497	1527	1523	1406	1682	1678	1710	1697	1692	1510
Q Serve(g_s), s	11.5	27.8	12.4	5.9	9.9	10.6	9.2	24.9	24.9	7.1	21.0	2.8
Cycle Q Clear(g_c), s	11.5	27.8	12.4	5.9	9.9	10.6	9.2	24.9	24.9	7.1	21.0	2.8
Prop In Lane	1.00		1.00	1.00		0.78	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	205	468	396	105	322	297	169	702	715	139	1352	603
V/C Ratio(X)	0.81	0.90	0.46	0.73	0.45	0.48	0.78	0.63	0.63	0.76	0.80	0.24
Avail Cap(c_a), veh/h	294	501	424	115	322	297	182	702	715	156	1352	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	51.3	42.7	37.0	54.8	41.2	41.5	52.7	27.6	27.6	49.0	9.4	7.5
Incr Delay (d2), s/veh	10.1	19.1	0.8	18.6	1.0	1.2	18.1	4.2	4.2	17.0	4.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	14.1	4.5	2.7	3.7	3.7	4.6	10.0	10.2	3.4	4.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	61.8	37.8	73.4	42.2	42.7	70.7	31.8	31.7	66.0	14.3	8.5
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	B	A
Approach Vol, veh/h	772			362			1023			1324		
Approach Delay, s/veh	56.0			48.9			36.8			17.7		
Approach LOS	E			D			D			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	55.2	13.2	36.8	17.1	52.9	19.6	30.4				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	10.0	45.0	8.0	33.0	12.0	43.0	20.0	21.0				
Max Q Clear Time (g_c+I1), s	9.1	26.9	7.9	29.8	11.2	23.0	13.5	12.6				
Green Ext Time (p_c), s	0.0	4.6	0.0	1.0	0.0	7.2	0.2	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	35.1											
HCM 6th LOS	D											

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	73	19	16	12
Future Vol, veh/h	5	5	73	19	16	12
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	100	100	100	100	100	100
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	5	5	73	19	16	12
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	127	83	0	0	92	0
Stage 1	83	-	-	-	-	-
Stage 2	44	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	765	859	-	-	1249	-
Stage 1	832	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	755	859	-	-	1249	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	832	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		4.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	804	1249	-	
HCM Lane V/C Ratio	-	-	0.012	0.013	-	
HCM Control Delay (s)	-	-	9.5	7.9	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

HCM 6th TWSC
12: Enterprise Dr & Resource Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative PM

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	146	70	208	81	92
Future Vol, veh/h	275	146	70	208	81	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	275	146	70	208	81	92
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	421	0	696	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	348	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1138	-	408	695
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	715	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1138	-	383	695
Mov Cap-2 Maneuver	-	-	-	-	490	-
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	671	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	2.1		12.3		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	490	695	-	-	1138	-
HCM Lane V/C Ratio	0.165	0.132	-	-	0.062	-
HCM Control Delay (s)	13.8	11	-	-	8.4	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.2	-

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	  			  	
Traffic Volume (veh/h)	38	192	601	214	177	38	405	758	197	65	1269	30
Future Volume (veh/h)	38	192	601	214	177	38	405	758	197	65	1269	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	192	601	214	177	38	405	758	197	65	1269	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	750	564	218	1024	457	499	1565	403	103	1539	36
Arrive On Green	0.05	0.21	0.21	0.12	0.29	0.29	0.14	0.39	0.39	0.06	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4046	1041	1781	5131	121
Grp Volume(v), veh/h	38	192	601	214	177	38	405	636	319	65	842	457
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1683	1781	1702	1849
Q Serve(g_s), s	1.9	4.1	19.0	10.8	3.4	1.6	10.2	12.7	12.9	3.2	20.7	20.7
Cycle Q Clear(g_c), s	1.9	4.1	19.0	10.8	3.4	1.6	10.2	12.7	12.9	3.2	20.7	20.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.07
Lane Grp Cap(c), veh/h	80	750	564	218	1024	457	499	1316	651	103	1021	555
V/C Ratio(X)	0.47	0.26	1.07	0.98	0.17	0.08	0.81	0.48	0.49	0.63	0.82	0.82
Avail Cap(c_a), veh/h	119	750	564	218	1024	457	499	1316	651	158	1021	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	29.6	29.0	39.4	24.0	23.4	37.3	20.8	20.9	41.5	29.3	29.3
Incr Delay (d2), s/veh	4.2	0.2	56.8	55.9	0.1	0.1	9.8	1.3	2.6	6.2	7.5	13.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	20.5	8.0	1.4	0.6	4.9	5.1	5.4	1.6	9.2	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	29.8	85.8	95.4	24.1	23.4	47.1	22.1	23.5	47.7	36.8	42.4
LnGrp LOS	D	C	F	F	C	C	D	C	C	D	D	D
Approach Vol, veh/h		831			429			1360			1364	
Approach Delay, s/veh		71.1			59.6			29.9			39.2	
Approach LOS		E			E			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	39.8	16.0	24.0	18.0	32.0	9.1	30.9				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	31.0	10.0	18.0	12.0	26.0	5.0	23.0				
Max Q Clear Time (g_c+I1), s	5.2	14.9	12.8	21.0	12.2	22.7	3.9	5.4				
Green Ext Time (p_c), s	0.0	5.9	0.0	0.0	0.0	2.3	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			44.9									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

2: S Riverside Ave & I-10 WB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth + Cumulative + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	827	5	419	596	1115	0	0	1240	588
Future Volume (veh/h)	0	0	0	827	5	419	596	1115	0	0	1240	588
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				1737	1737	1737	1678	1678	0	0	1870	1870
Adj Flow Rate, veh/h				959	0	281	596	1115	0	0	1240	588
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				11	11	11	15	15	0	0	2	2
Cap, veh/h				1092	0	486	694	2548	0	0	1774	437
Arrive On Green				0.33	0.00	0.33	0.22	0.56	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3309	0	1472	3100	4731	0	0	6696	1585
Grp Volume(v), veh/h				959	0	281	596	1115	0	0	1240	588
Grp Sat Flow(s),veh/h/ln				1654	0	1472	1550	1527	0	0	1609	1585
Q Serve(g_s), s				24.1	0.0	13.9	16.3	12.6	0.0	0.0	15.2	24.3
Cycle Q Clear(g_c), s				24.1	0.0	13.9	16.3	12.6	0.0	0.0	15.2	24.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1092	0	486	694	2548	0	0	1774	437
V/C Ratio(X)				0.88	0.00	0.58	0.86	0.44	0.00	0.00	0.70	1.35
Avail Cap(c_a), veh/h				1165	0	518	739	2548	0	0	1774	437
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				27.8	0.0	24.4	32.8	11.5	0.0	0.0	28.6	31.9
Incr Delay (d2), s/veh				7.6	0.0	1.4	9.5	0.5	0.0	0.0	2.3	170.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.3	0.0	4.9	6.4	3.5	0.0	0.0	5.5	28.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				35.4	0.0	25.9	42.4	12.0	0.0	0.0	30.9	202.0
LnGrp LOS				D	A	C	D	B	A	A	C	F
Approach Vol, veh/h				1240				1711				1828
Approach Delay, s/veh				33.2				22.6				86.0
Approach LOS				C				C				F
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	54.0			24.7			29.3			34.1		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	48.0			20.0			22.0			30.0		
Max Q Clear Time (g_c+I1), s	14.6			18.3			26.3			26.1		
Green Ext Time (p_c), s	8.2			0.4			0.0			2.0		
Intersection Summary												
HCM 6th Ctrl Delay			49.6									
HCM 6th LOS			D									
Notes												

HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	379	8	752	0	0	0	0	1329	684	426	1643	0
Future Volume (veh/h)	379	8	752	0	0	0	0	1329	684	426	1643	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	1693	1693	1693				0	1574	1574	1796	1796	0
Adj Flow Rate, veh/h	255	0	890				0	1329	684	426	1643	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14				0	22	22	7	7	0
Cap, veh/h	430	0	765				0	1273	593	406	2124	0
Arrive On Green	0.27	0.00	0.27				0.00	0.44	0.44	0.12	0.62	0.00
Sat Flow, veh/h	1612	0	2869				0	3006	1334	3319	3503	0
Grp Volume(v), veh/h	255	0	890				0	1329	684	426	1643	0
Grp Sat Flow(s),veh/h/ln	1612	0	1434				0	1432	1334	1659	1706	0
Q Serve(g_s), s	12.4	0.0	24.0				0.0	40.0	40.0	11.0	31.6	0.0
Cycle Q Clear(g_c), s	12.4	0.0	24.0				0.0	40.0	40.0	11.0	31.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	430	0	765				0	1273	593	406	2124	0
V/C Ratio(X)	0.59	0.00	1.16				0.00	1.04	1.15	1.05	0.77	0.00
Avail Cap(c_a), veh/h	430	0	765				0	1273	593	406	2124	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	28.7	0.0	33.0				0.0	25.0	25.0	39.5	12.4	0.0
Incr Delay (d2), s/veh	2.2	0.0	87.6				0.0	37.5	87.3	58.5	2.8	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	4.9	0.0	17.4				0.0	17.9	24.9	7.4	9.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	0.0	120.6				0.0	62.5	112.3	98.0	15.2	0.0
LnGrp LOS	C	A	F				A	F	F	F	B	A
Approach Vol, veh/h	1145						2013			2069		
Approach Delay, s/veh	100.6						79.4			32.2		
Approach LOS	F						E			C		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.0	45.0		29.0		61.0						
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0						
Max Green Setting (Gmax), s	10.0	39.0		23.0		55.0						
Max Q Clear Time (g_c+I1), s	13.0	42.0		26.0		33.6						
Green Ext Time (p_c), s	0.0	0.0		0.0		11.8						
Intersection Summary												
HCM 6th Ctrl Delay	65.4											
HCM 6th LOS	E											
Notes												

HCM 6th Signalized Intersection Summary

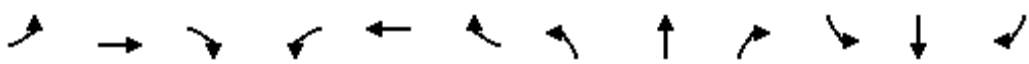
4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	21	135	38	29	61	142	1459	32	44	1765	569
Future Volume (veh/h)	424	21	135	38	29	61	142	1459	32	44	1765	569
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1693	1693	1693	1455	1455	1455	1500	1500	1500	1722	1722	1722
Adj Flow Rate, veh/h	424	21	135	38	29	61	142	1459	32	44	1765	569
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14	30	30	30	27	27	27	12	12	12
Cap, veh/h	332	428	363	312	349	312	110	1524	33	79	1248	381
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.08	0.53	0.53	0.05	0.51	0.51
Sat Flow, veh/h	1182	1693	1434	958	1383	1233	1428	2851	62	1640	2468	754
Grp Volume(v), veh/h	424	21	135	38	29	61	142	728	763	44	1137	1197
Grp Sat Flow(s),veh/h/ln	1182	1693	1434	958	1383	1233	1428	1425	1489	1640	1636	1586
Q Serve(g_s), s	19.5	0.9	7.1	2.8	1.5	3.5	7.0	44.3	44.5	2.4	46.0	46.0
Cycle Q Clear(g_c), s	23.0	0.9	7.1	3.7	1.5	3.5	7.0	44.3	44.5	2.4	46.0	46.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.48
Lane Grp Cap(c), veh/h	332	428	363	312	349	312	110	762	796	79	827	802
V/C Ratio(X)	1.28	0.05	0.37	0.12	0.08	0.20	1.29	0.96	0.96	0.56	1.37	1.49
Avail Cap(c_a), veh/h	332	428	363	312	349	312	110	762	796	108	827	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	25.7	28.0	27.1	26.0	26.7	42.0	20.2	20.2	42.4	22.5	22.5
Incr Delay (d2), s/veh	146.0	0.0	0.6	0.2	0.1	0.3	183.5	22.5	22.2	6.1	176.3	228.3
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	20.7	0.3	2.3	0.6	0.5	1.0	7.9	16.3	17.1	1.0	54.7	64.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	184.1	25.8	28.7	27.3	26.1	27.0	225.5	42.6	42.5	48.5	198.8	250.8
LnGrp LOS	F	C	C	C	C	C	F	D	D	D	F	F
Approach Vol, veh/h	580				128				1633			
Approach Delay, s/veh	142.2				26.9				58.5			
Approach LOS	F				C				E			
Approach LOS												
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.4	53.6	28.0		12.0	51.0	28.0					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	45.0	22.0		6.0	45.0	22.0					
Max Q Clear Time (g_c+I1), s	4.4	46.5	25.0		9.0	48.0	5.7					
Green Ext Time (p_c), s	0.0	0.0	0.0		0.0	0.0	0.5					
Intersection Summary												
HCM 6th Ctrl Delay	150.4											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	349	79	125	55	74	125	100	1199	61	240	1341	295
Future Volume (veh/h)	349	79	125	55	74	125	100	1199	61	240	1341	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1411	1411	1411	625	625	625	1574	1574	1574	1678	1678	1678
Adj Flow Rate, veh/h	349	79	125	55	74	125	100	1199	61	240	1341	295
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	33	33	33	86	86	86	22	22	22	15	15	15
Cap, veh/h	244	40	64	225	229	194	100	1030	52	178	1043	225
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.07	0.36	0.36	0.11	0.40	0.40
Sat Flow, veh/h	486	110	174	394	625	530	1499	2896	147	1598	2607	564
Grp Volume(v), veh/h	553	0	0	55	74	125	100	619	641	240	811	825
Grp Sat Flow(s),veh/h/ln	770	0	0	394	625	530	1499	1495	1547	1598	1594	1576
Q Serve(g_s), s	25.4	0.0	0.0	0.0	7.6	17.6	6.0	32.0	32.0	10.0	36.0	36.0
Cycle Q Clear(g_c), s	33.0	0.0	0.0	9.2	7.6	17.6	6.0	32.0	32.0	10.0	36.0	36.0
Prop In Lane	0.63		0.23	1.00		1.00	1.00		0.10	1.00		0.36
Lane Grp Cap(c), veh/h	348	0	0	225	229	194	100	532	550	178	638	631
V/C Ratio(X)	1.59	0.00	0.00	0.24	0.32	0.64	1.00	1.16	1.17	1.35	1.27	1.31
Avail Cap(c_a), veh/h	348	0	0	225	229	194	100	532	550	178	638	631
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(l)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	0.0	21.0	20.5	23.6	42.0	29.0	29.0	40.0	27.0	27.0
Incr Delay (d2), s/veh	278.9	0.0	0.0	0.6	0.8	7.0	90.2	92.8	92.9	190.7	134.4	150.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	34.5	0.0	0.0	0.8	1.1	2.4	4.6	23.7	24.5	13.0	35.5	37.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	313.6	0.0	0.0	21.5	21.3	30.7	132.2	121.8	121.9	230.7	161.4	177.1
LnGrp LOS	F	A	A	C	C	C	F	F	F	F	F	F
Approach Vol, veh/h		553			254			1360			1876	
Approach Delay, s/veh		313.6			26.0			122.6			177.2	
Approach LOS		F			C			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	37.0		38.0	11.0	41.0		38.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	31.0		32.0	5.0	35.0		32.0				
Max Q Clear Time (g_c+I1), s	12.0	34.0		35.0	8.0	38.0		19.6				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		1.3				
Intersection Summary												
HCM 6th Ctrl Delay			168.0									
HCM 6th LOS			F									

HCM 6th TWSC
6: S Riverside Ave & Industrial Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	82	1157	7	169	1273
Future Vol, veh/h	0	82	1157	7	169	1273
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	59	59	20	20	15	15
Mvmt Flow	0	82	1157	7	169	1273
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2136	582	0	0	1164	0
Stage 1	1161	-	-	-	-	-
Stage 2	975	-	-	-	-	-
Critical Hdwy	7.98	8.08	-	-	4.4	-
Critical Hdwy Stg 1	6.98	-	-	-	-	-
Critical Hdwy Stg 2	6.98	-	-	-	-	-
Follow-up Hdwy	4.09	3.89	-	-	2.35	-
Pot Cap-1 Maneuver	21	338	-	-	527	-
Stage 1	167	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	14	338	-	-	527	-
Mov Cap-2 Maneuver	78	-	-	-	-	-
Stage 1	167	-	-	-	-	-
Stage 2	149	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19	0		1.8		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	338	527	-	
HCM Lane V/C Ratio	-	-	0.243	0.321	-	
HCM Control Delay (s)	-	-	19	15	-	
HCM Lane LOS	-	-	C	C	-	
HCM 95th %tile Q(veh)	-	-	0.9	1.4	-	

HCM 6th Signalized Intersection Summary 7: S Riverside Ave & Jurupa Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	141	80	1136	1258	79
Future Volume (veh/h)	59	141	80	1136	1258	79
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	141	80	1136	1258	79
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	376	335	178	2409	1773	111
Arrive On Green	0.21	0.21	0.10	0.68	0.52	0.52
Sat Flow, veh/h	1781	1585	1781	3647	3489	213
Grp Volume(v), veh/h	59	141	80	1136	657	680
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1832
Q Serve(g_s), s	2.4	6.9	3.8	13.6	25.2	25.4
Cycle Q Clear(g_c), s	2.4	6.9	3.8	13.6	25.2	25.4
Prop In Lane	1.00	1.00	1.00			0.12
Lane Grp Cap(c), veh/h	376	335	178	2409	928	957
V/C Ratio(X)	0.16	0.42	0.45	0.47	0.71	0.71
Avail Cap(c_a), veh/h	376	335	178	2409	928	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	30.7	38.2	6.9	16.3	16.3
Incr Delay (d2), s/veh	0.9	3.9	8.0	0.7	4.6	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	6.7	2.0	4.5	10.6	11.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.9	34.6	46.1	7.5	20.9	20.8
LnGrp LOS	C	C	D	A	C	C
Approach Vol, veh/h	200			1216	1337	
Approach Delay, s/veh	33.2			10.1	20.8	
Approach LOS	C			B	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	66.0			24.0	14.0	52.0
Change Period (Y+Rc), s	6.0			6.0	6.0	6.0
Max Green Setting (Gmax), s	60.0			18.0	8.0	46.0
Max Q Clear Time (g_c+l1), s	15.6			8.9	5.8	27.4
Green Ext Time (p_c), s	11.2			0.4	0.0	9.3
Intersection Summary						
HCM 6th Ctrl Delay			17.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary 8: S Riverside Ave & Resource Dr/Industrial Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	45	29	29	5	5	34	1024	69	8	1270	250
Future Volume (veh/h)	204	45	29	29	5	5	34	1024	69	8	1270	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1337	1337	1337	1085	1085	1085	1633	1633	1633	1633	1633	1633
Adj Flow Rate, veh/h	204	45	29	29	5	5	34	1024	69	8	1270	250
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	38	38	38	55	55	55	18	18	18	18	18	18
Cap, veh/h	289	172	111	160	24	19	57	1860	125	28	1585	309
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.07	1.00	1.00	0.02	0.61	0.61
Sat Flow, veh/h	1004	759	489	477	106	86	1555	2950	199	1555	2590	504
Grp Volume(v), veh/h	204	0	74	39	0	0	34	538	555	8	756	764
Grp Sat Flow(s),veh/h/ln	1004	0	1249	668	0	0	1555	1552	1597	1555	1552	1542
Q Serve(g_s), s	13.6	0.0	5.8	4.0	0.0	0.0	2.5	0.0	0.0	0.6	44.2	45.8
Cycle Q Clear(g_c), s	23.5	0.0	5.8	9.9	0.0	0.0	2.5	0.0	0.0	0.6	44.2	45.8
Prop In Lane	1.00		0.39	0.74		0.13	1.00		0.12	1.00		0.33
Lane Grp Cap(c), veh/h	289	0	283	204	0	0	57	978	1007	28	950	944
V/C Ratio(X)	0.71	0.00	0.26	0.19	0.00	0.00	0.60	0.55	0.55	0.28	0.80	0.81
Avail Cap(c_a), veh/h	329	0	333	236	0	0	78	978	1007	78	950	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	45.0	0.0	38.2	41.0	0.0	0.0	54.8	0.0	0.0	58.1	17.6	17.9
Incr Delay (d2), s/veh	5.8	0.0	0.5	0.5	0.0	0.0	9.6	2.2	2.2	4.0	5.2	5.6
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	6.4	0.0	1.9	1.0	0.0	0.0	1.1	0.6	0.6	0.3	14.5	15.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	0.0	38.7	41.5	0.0	0.0	64.4	2.2	2.2	62.2	22.8	23.5
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	C	C
Approach Vol, veh/h	278		39			1127				1528		
Approach Delay, s/veh	47.6		41.5			4.1				23.4		
Approach LOS	D		D			A				C		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.2	80.7	32.2		9.4	78.4	32.2					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	66.0	31.0		5.0	66.0	31.0					
Max Q Clear Time (g_c+l1), s	2.6	2.0	25.5		4.5	47.8	11.9					
Green Ext Time (p_c), s	0.0	7.6	0.7		0.0	9.3	0.1					
Intersection Summary												
HCM 6th Ctrl Delay			18.6									
HCM 6th LOS			B									
Notes												

HCM 6th TWSC
9: S Riverside Ave & Singleton Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	11	1121	17	21	1307
Future Vol, veh/h	0	11	1121	17	21	1307
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	1121	17	21	1307
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	569	0	0	1138	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	465	-	-	610	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	465	-	-	610	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.9	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 465		610	-	
HCM Lane V/C Ratio	-	- 0.024		0.034	-	
HCM Control Delay (s)	-	- 12.9		11.1	-	
HCM Lane LOS	-	- B		B	-	
HCM 95th %tile Q(veh)	-	- 0.1		0.1	-	

HCM 6th Signalized Intersection Summary 10: S Riverside Ave & Agua Mansa Rd

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	99	78	100	290	91	131	773	37	55	998	158
Future Volume (veh/h)	158	99	78	100	290	91	131	773	37	55	998	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1604	1604	1604	1678	1678	1678	1693	1693	1693	1737	1737	1737
Adj Flow Rate, veh/h	158	99	78	100	290	91	131	773	37	55	998	158
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	20	20	20	15	15	15	14	14	14	11	11	11
Cap, veh/h	193	304	258	134	354	109	167	1594	76	82	1505	671
Arrive On Green	0.13	0.19	0.19	0.08	0.15	0.15	0.10	0.51	0.51	0.10	0.91	0.91
Sat Flow, veh/h	1527	1604	1359	1598	2400	738	1612	3124	149	1654	3300	1472
Grp Volume(v), veh/h	158	99	78	100	191	190	131	398	412	55	998	158
Grp Sat Flow(s),veh/h/ln	1527	1604	1359	1598	1594	1545	1612	1608	1666	1654	1650	1472
Q Serve(g_s), s	12.1	6.4	5.9	7.3	13.9	14.4	9.5	19.3	19.3	3.9	8.1	1.4
Cycle Q Clear(g_c), s	12.1	6.4	5.9	7.3	13.9	14.4	9.5	19.3	19.3	3.9	8.1	1.4
Prop In Lane	1.00		1.00	1.00		0.48	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	193	304	258	134	235	228	167	820	850	82	1505	671
V/C Ratio(X)	0.82	0.33	0.30	0.75	0.81	0.83	0.78	0.48	0.49	0.67	0.66	0.24
Avail Cap(c_a), veh/h	229	307	260	186	252	245	201	820	850	138	1505	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	51.1	42.0	41.8	53.7	49.5	49.7	52.5	19.1	19.1	53.1	3.2	2.9
Incr Delay (d2), s/veh	17.9	0.6	0.7	9.9	16.8	20.4	15.3	2.0	2.0	9.2	2.3	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	5.5	2.5	2.0	3.2	6.5	6.7	4.4	7.0	7.2	1.7	1.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.1	42.6	42.4	63.6	66.3	70.1	67.8	21.2	21.1	62.3	5.5	3.8
LnGrp LOS	E	D	D	E	E	E	E	C	C	E	A	A
Approach Vol, veh/h		335			481			941			1211	
Approach Delay, s/veh		55.0			67.3			27.6			7.9	
Approach LOS		E			E			C			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	66.2	15.1	27.8	17.4	59.7	20.1	22.7				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	9.0	52.0	13.0	22.0	14.0	47.0	17.0	18.0				
Max Q Clear Time (g_c+I1), s	5.9	21.3	9.3	8.4	11.5	10.1	14.1	16.4				
Green Ext Time (p_c), s	0.0	4.7	0.1	0.5	0.1	8.0	0.1	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			29.1									
HCM 6th LOS			C									

HCM 6th TWSC
11: Industrial Dr & Fortuna Way

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	35	31	91	134	19
Future Vol, veh/h	19	35	31	91	134	19
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	100	100	100	100	100	100
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	19	35	31	91	134	19
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	364	77	0	0	122	0
Stage 1	77	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	550	866	-	-	1215	-
Stage 1	838	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	489	866	-	-	1215	-
Mov Cap-2 Maneuver	489	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.7	0	7.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	681	1215	-	
HCM Lane V/C Ratio	-	-	0.079	0.11	-	
HCM Control Delay (s)	-	-	10.7	8.3	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.4	-	

HCM 6th TWSC
12: Enterprise Dr & Resource Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM

Intersection						
Int Delay, s/veh	4.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	181	73	74	215	134	74
Future Vol, veh/h	181	73	74	215	134	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	181	73	74	215	134	74
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	254	0	581	218
Stage 1	-	-	-	-	218	-
Stage 2	-	-	-	-	363	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1311	-	476	822
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	704	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	449	822
Mov Cap-2 Maneuver	-	-	-	-	534	-
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	665	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		12.5	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	534	822	-	-	1311	-
HCM Lane V/C Ratio	0.251	0.09	-	-	0.056	-
HCM Control Delay (s)	14	9.8	-	-	7.9	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1	0.3	-	-	0.2	-

HCM 6th Signalized Intersection Summary

1: S Riverside Ave & W Valley Blvd

Anglus Block Facility (Rialto, CA)

Existing + Growth + Cumulative + Project PM

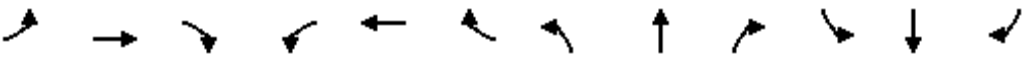
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	  			  	
Traffic Volume (veh/h)	98	263	526	226	306	131	620	1387	231	85	924	61
Future Volume (veh/h)	98	263	526	226	306	131	620	1387	231	85	924	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	263	526	226	306	131	620	1387	231	85	924	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	750	634	277	977	436	653	1568	261	119	1142	75
Arrive On Green	0.08	0.21	0.21	0.16	0.27	0.27	0.19	0.36	0.36	0.07	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	4409	734	1781	4894	322
Grp Volume(v), veh/h	98	263	526	226	306	131	620	1071	547	85	642	343
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1702	1738	1781	1702	1812
Q Serve(g_s), s	4.8	5.7	19.0	11.0	6.1	5.9	16.0	26.6	26.6	4.2	16.0	16.1
Cycle Q Clear(g_c), s	4.8	5.7	19.0	11.0	6.1	5.9	16.0	26.6	26.6	4.2	16.0	16.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		0.18
Lane Grp Cap(c), veh/h	144	750	634	277	977	436	653	1210	618	119	794	423
V/C Ratio(X)	0.68	0.35	0.83	0.82	0.31	0.30	0.95	0.88	0.89	0.72	0.81	0.81
Avail Cap(c_a), veh/h	198	750	634	277	977	436	653	1210	618	119	794	423
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	30.2	24.2	36.8	25.9	25.8	36.1	27.3	27.3	41.2	32.6	32.6
Incr Delay (d2), s/veh	5.6	0.3	9.1	17.0	0.2	0.4	23.5	9.6	16.9	18.5	8.7	15.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.4	11.1	6.0	2.6	2.2	8.7	11.9	13.5	2.4	7.4	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	30.5	33.3	53.7	26.1	26.2	59.6	36.9	44.2	59.6	41.3	48.1
LnGrp LOS	D	C	C	D	C	C	E	D	D	E	D	D
Approach Vol, veh/h		887			663			2238			1070	
Approach Delay, s/veh		33.9			35.5			45.0			44.9	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	37.0	18.0	24.0	22.0	26.0	12.3	29.7				
Change Period (Y+Rc), s	6.0	6.0	5.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	31.0	13.0	18.0	16.0	20.0	9.0	21.0				
Max Q Clear Time (g_c+I1), s	6.2	28.6	13.0	21.0	18.0	18.1	6.8	8.1				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.0	1.2	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			41.6									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

2: S Riverside Ave & I-10 WB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth + Cumulative + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	878	3	535	615	1775	0	0	1346	448
Future Volume (veh/h)	0	0	0	878	3	535	615	1775	0	0	1346	448
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				1752	1752	1752	1841	1841	0	0	1856	1856
Adj Flow Rate, veh/h				1046	0	358	615	1775	0	0	1346	448
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				10	10	10	4	4	0	0	3	3
Cap, veh/h				1200	0	534	718	2644	0	0	1647	406
Arrive On Green				0.36	0.00	0.36	0.21	0.53	0.00	0.00	0.26	0.26
Sat Flow, veh/h				3337	0	1485	3401	5191	0	0	6643	1572
Grp Volume(v), veh/h				1046	0	358	615	1775	0	0	1346	448
Grp Sat Flow(s),veh/h/ln				1668	0	1485	1700	1675	0	0	1596	1572
Q Serve(g_s), s				25.6	0.0	17.8	15.2	22.6	0.0	0.0	17.3	22.6
Cycle Q Clear(g_c), s				25.6	0.0	17.8	15.2	22.6	0.0	0.0	17.3	22.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1200	0	534	718	2644	0	0	1647	406
V/C Ratio(X)				0.87	0.00	0.67	0.86	0.67	0.00	0.00	0.82	1.10
Avail Cap(c_a), veh/h				1298	0	577	739	2644	0	0	1647	406
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				26.1	0.0	23.6	33.2	15.2	0.0	0.0	30.5	32.4
Incr Delay (d2), s/veh				6.4	0.0	2.7	9.6	1.4	0.0	0.0	4.6	76.0
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				10.7	0.0	6.4	6.6	7.2	0.0	0.0	6.5	16.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.5	0.0	26.4	42.9	16.6	0.0	0.0	35.1	108.5
LnGrp LOS				C	A	C	D	B	A	A	D	F
Approach Vol, veh/h					1404			2390			1794	
Approach Delay, s/veh					31.0			23.3			53.4	
Approach LOS					C			C			D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		51.0			23.4	27.6		36.4				
Change Period (Y+Rc), s		6.0			6.0	6.0		6.0				
Max Green Setting (Gmax), s		45.0			18.0	21.0		33.0				
Max Q Clear Time (g_c+I1), s		24.6			17.2	24.6		27.6				
Green Ext Time (p_c), s		11.8			0.2	0.0		2.9				
Intersection Summary												
HCM 6th Ctrl Delay				34.9								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	632	0	690	0	0	0	0	1752	908	511	1737	0
Future Volume (veh/h)	632	0	690	0	0	0	0	1752	908	511	1737	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	1767	1767	1767				0	1781	1781	1796	1796	0
Adj Flow Rate, veh/h	856	0	450				0	1752	908	511	1737	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	9	9	9				0	8	8	7	7	0
Cap, veh/h	823	0	366				0	1514	704	406	2199	0
Arrive On Green	0.24	0.00	0.24				0.00	0.47	0.47	0.12	0.64	0.00
Sat Flow, veh/h	3365	0	1497				0	3404	1508	3319	3503	0
Grp Volume(v), veh/h	856	0	450				0	1751	909	511	1737	0
Grp Sat Flow(s),veh/h/ln	1682	0	1497				0	1621	1510	1659	1706	0
Q Serve(g_s), s	22.0	0.0	22.0				0.0	42.0	42.0	11.0	33.2	0.0
Cycle Q Clear(g_c), s	22.0	0.0	22.0				0.0	42.0	42.0	11.0	33.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	823	0	366				0	1513	705	406	2199	0
V/C Ratio(X)	1.04	0.00	1.23				0.00	1.16	1.29	1.26	0.79	0.00
Avail Cap(c_a), veh/h	823	0	366				0	1513	705	406	2199	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	34.0	0.0	34.0				0.0	24.0	24.0	39.5	11.6	0.0
Incr Delay (d2), s/veh	42.4	0.0	125.1				0.0	78.6	141.1	135.5	3.0	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	13.6	0.0	20.5				0.0	29.8	40.0	11.8	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.4	0.0	159.1				0.0	102.6	165.1	175.0	14.6	0.0
LnGrp LOS	F	A	F				A	F	F	F	B	A
Approach Vol, veh/h	1306						2660			2248		
Approach Delay, s/veh	104.9						124.0			51.0		
Approach LOS	F						F			D		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.0	47.0		27.0		63.0						
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0						
Max Green Setting (Gmax), s	10.0	41.0		21.0		57.0						
Max Q Clear Time (g_c+I1), s	13.0	44.0		24.0		35.2						
Green Ext Time (p_c), s	0.0	0.0		0.0		12.7						
Intersection Summary												
HCM 6th Ctrl Delay				93.6								
HCM 6th LOS				F								
Notes												

HCM 6th Signalized Intersection Summary

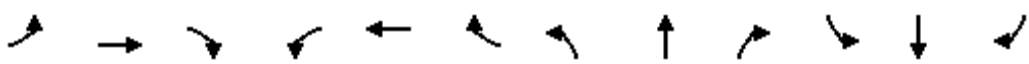
4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	566	124	209	37	31	82	86	1852	31	58	1943	422
Future Volume (veh/h)	566	124	209	37	31	82	86	1852	31	58	1943	422
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1796	1796	1796	1411	1411	1411	1767	1767	1767	1707	1707	1707
Adj Flow Rate, veh/h	566	124	209	37	31	82	86	1852	31	58	1943	422
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	7	7	7	33	33	33	9	9	9	13	13	13
Cap, veh/h	400	559	474	285	417	372	112	1579	26	89	1216	255
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.07	0.47	0.47	0.05	0.46	0.46
Sat Flow, veh/h	1229	1796	1522	790	1340	1196	1682	3378	56	1626	2670	559
Grp Volume(v), veh/h	566	124	209	37	31	82	86	918	965	58	1152	1213
Grp Sat Flow(s),veh/h/ln	1229	1796	1522	790	1340	1196	1682	1678	1756	1626	1622	1607
Q Serve(g_s), s	23.4	4.6	9.9	3.3	1.5	4.6	4.5	42.1	42.1	3.1	41.0	41.0
Cycle Q Clear(g_c), s	28.0	4.6	9.9	7.9	1.5	4.6	4.5	42.1	42.1	3.1	41.0	41.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.35
Lane Grp Cap(c), veh/h	400	559	474	285	417	372	112	784	821	89	739	732
V/C Ratio(X)	1.41	0.22	0.44	0.13	0.07	0.22	0.77	1.17	1.18	0.65	1.56	1.66
Avail Cap(c_a), veh/h	400	559	474	285	417	372	112	784	821	108	739	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	22.9	24.8	25.9	21.9	22.9	41.3	24.0	24.0	41.7	24.5	24.5
Incr Delay (d2), s/veh	201.0	0.2	0.6	0.2	0.1	0.3	26.7	89.9	91.8	9.6	258.3	301.7
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	30.9	1.8	3.4	0.6	0.4	1.2	2.6	33.3	35.3	1.4	66.1	74.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	236.6	23.1	25.4	26.1	21.9	23.2	68.0	113.9	115.8	51.3	282.8	326.2
LnGrp LOS	F	C	C	C	C	C	E	F	F	D	F	F
Approach Vol, veh/h	899				150				1969			
Approach Delay, s/veh	158.1				23.7				112.8			
Approach LOS	F				C				F			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.9	47.1	33.0		11.0	46.0	33.0					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	40.0	27.0		5.0	40.0	27.0					
Max Q Clear Time (g_c+I1), s	5.1	44.1	30.0		6.5	43.0	9.9					
Green Ext Time (p_c), s	0.0	0.0	0.0		0.0	0.0	0.7					
Intersection Summary												
HCM 6th Ctrl Delay	200.7											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↕		↔	↕	
Traffic Volume (veh/h)	252	34	147	67	20	117	103	1572	41	185	1717	246
Future Volume (veh/h)	252	34	147	67	20	117	103	1572	41	185	1717	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1633	1633	1633	1752	1752	1752	1707	1707	1707
Adj Flow Rate, veh/h	252	34	147	67	20	117	103	1572	41	185	1717	246
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	13	13	13	18	18	18	10	10	10	13	13	13
Cap, veh/h	245	24	106	324	417	354	111	1547	40	181	1461	204
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.07	0.47	0.47	0.11	0.51	0.51
Sat Flow, veh/h	710	96	414	1051	1633	1384	1668	3314	86	1626	2858	400
Grp Volume(v), veh/h	433	0	0	67	20	117	103	788	825	185	956	1007
Grp Sat Flow(s),veh/h/ln	1220	0	0	1051	1633	1384	1668	1664	1736	1626	1622	1635
Q Serve(g_s), s	22.2	0.0	0.0	0.0	0.8	6.2	5.5	42.0	42.0	10.0	46.0	46.0
Cycle Q Clear(g_c), s	23.0	0.0	0.0	5.1	0.8	6.2	5.5	42.0	42.0	10.0	46.0	46.0
Prop In Lane	0.58		0.34	1.00		1.00	1.00		0.05	1.00		0.24
Lane Grp Cap(c), veh/h	375	0	0	324	417	354	111	777	810	181	829	836
V/C Ratio(X)	1.15	0.00	0.00	0.21	0.05	0.33	0.93	1.01	1.02	1.02	1.15	1.20
Avail Cap(c_a), veh/h	375	0	0	324	417	354	111	777	810	181	829	836
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	0.0	0.0	26.8	25.2	27.2	41.8	24.0	24.0	40.0	22.0	22.0
Incr Delay (d2), s/veh	95.5	0.0	0.0	0.3	0.0	0.5	62.3	35.9	36.3	73.4	82.7	103.3
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	18.1	0.0	0.0	1.1	0.3	2.0	4.0	21.3	22.4	7.4	33.0	38.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	131.3	0.0	0.0	27.1	25.3	27.8	104.1	59.9	60.3	113.4	104.7	125.3
LnGrp LOS	F	A	A	C	C	C	F	F	F	F	F	F
Approach Vol, veh/h		433			204			1716			2148	
Approach Delay, s/veh		131.3			27.3			62.8			115.1	
Approach LOS		F			C			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	47.0		28.0	11.0	51.0		28.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	41.0		22.0	5.0	45.0		22.0				
Max Q Clear Time (g_c+I1), s	12.0	44.0		25.0	7.5	48.0		8.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				92.7								
HCM 6th LOS				F								

HCM 6th TWSC
6: S Riverside Ave & Industrial Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

Intersection

Int Delay, s/veh 1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	149	1402	9	98	1808
Future Vol, veh/h	3	149	1402	9	98	1808
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	32	32	9	9	12	12
Mvmt Flow	3	149	1402	9	98	1808

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2507	706	0
Stage 1	1407	-	-
Stage 2	1100	-	-
Critical Hdwy	7.44	7.54	-
Critical Hdwy Stg 1	6.44	-	-
Critical Hdwy Stg 2	6.44	-	-
Follow-up Hdwy	3.82	3.62	-
Pot Cap-1 Maneuver	15	317	-
Stage 1	146	-	-
Stage 2	223	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	12	317	-
Mov Cap-2 Maneuver	78	-	-
Stage 1	146	-	-
Stage 2	172	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.9	0	0.8
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	299	431
HCM Lane V/C Ratio	-	-	0.508	0.227
HCM Control Delay (s)	-	-	28.9	15.8
HCM Lane LOS	-	-	D	C
HCM 95th %tile Q(veh)	-	-	2.7	0.9

HCM 6th Signalized Intersection Summary 7: S Riverside Ave & Jurupa Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

							
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	31	163	2	102	1371	1754	83
Future Volume (veh/h)	31	163	2	102	1371	1754	83
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00			1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	31	163		102	1371	1754	83
Peak Hour Factor	1.00	1.00		1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	246	219		149	2632	2123	100
Arrive On Green	0.14	0.14		0.08	0.74	0.61	0.61
Sat Flow, veh/h	1781	1585		1781	3647	3549	162
Grp Volume(v), veh/h	31	163		102	1371	896	941
Grp Sat Flow(s),veh/h/ln	1781	1585		1781	1777	1777	1841
Q Serve(g_s), s	1.3	8.1		4.6	13.4	32.3	33.2
Cycle Q Clear(g_c), s	1.3	8.1		4.6	13.4	32.3	33.2
Prop In Lane	1.00	1.00		1.00			0.09
Lane Grp Cap(c), veh/h	246	219		149	2632	1092	1131
V/C Ratio(X)	0.13	0.75		0.68	0.52	0.82	0.83
Avail Cap(c_a), veh/h	411	366		149	2632	1092	1131
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	34.1		36.7	4.5	12.4	12.5
Incr Delay (d2), s/veh	0.2	5.0		12.1	0.7	7.0	7.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	7.2		2.5	3.7	12.8	13.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.4	39.1		48.8	5.3	19.3	19.7
LnGrp LOS	C	D		D	A	B	B
Approach Vol, veh/h	194				1473	1837	
Approach Delay, s/veh	37.9				8.3	19.5	
Approach LOS	D				A	B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		66.0		16.4	10.4	55.6	
Change Period (Y+Rc), s		6.0		6.0	4.5	6.0	
Max Green Setting (Gmax), s		60.0		18.0	5.9	49.6	
Max Q Clear Time (g_c+I1), s		15.4		10.1	6.6	35.2	
Green Ext Time (p_c), s		15.0		0.3	0.0	10.9	
Intersection Summary							
HCM 6th Ctrl Delay			15.8				
HCM 6th LOS			B				
Notes							

HCM 6th Signalized Intersection Summary 8: S Riverside Ave & Resource Dr/Industrial Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	48	74	51	6	6	28	1135	44	22	1282	249
Future Volume (veh/h)	253	48	74	51	6	6	28	1135	44	22	1282	249
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1648	1648	1648	1826	1826	1826	1737	1737	1737	1678	1678	1678
Adj Flow Rate, veh/h	253	48	74	51	6	6	28	1135	44	22	1282	249
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	17	17	17	5	5	5	11	11	11	15	15	15
Cap, veh/h	346	130	201	216	25	20	56	2016	78	48	1650	317
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	1.00	1.00	0.03	0.62	0.62
Sat Flow, veh/h	1236	585	901	726	114	88	1654	3239	126	1598	2667	512
Grp Volume(v), veh/h	253	0	122	63	0	0	28	578	601	22	761	770
Grp Sat Flow(s),veh/h/ln	1236	0	1486	928	0	0	1654	1650	1714	1598	1594	1585
Q Serve(g_s), s	9.9	0.0	8.3	4.5	0.0	0.0	2.0	0.0	0.0	1.6	41.8	43.2
Cycle Q Clear(g_c), s	22.7	0.0	8.3	12.8	0.0	0.0	2.0	0.0	0.0	1.6	41.8	43.2
Prop In Lane	1.00		0.61	0.81		0.10	1.00		0.07	1.00		0.32
Lane Grp Cap(c), veh/h	346	0	331	261	0	0	56	1027	1067	48	986	981
V/C Ratio(X)	0.73	0.00	0.37	0.24	0.00	0.00	0.50	0.56	0.56	0.46	0.77	0.79
Avail Cap(c_a), veh/h	411	0	409	329	0	0	83	1027	1067	80	986	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.50	0.50	0.50
Uniform Delay (d), s/veh	44.9	0.0	39.5	43.8	0.0	0.0	55.0	0.0	0.0	57.2	16.7	17.0
Incr Delay (d2), s/veh	5.4	0.0	0.7	0.5	0.0	0.0	6.9	2.2	2.2	3.4	3.0	3.2
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	7.8	0.0	3.2	1.7	0.0	0.0	0.9	0.6	0.6	0.7	13.5	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	0.0	40.2	44.3	0.0	0.0	61.9	2.2	2.2	60.6	19.7	20.2
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	B	C
Approach Vol, veh/h	375		63			1207			1553			
Approach Delay, s/veh	47.0		44.3			3.6			20.5			
Approach LOS	D		D			A			C			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.6	79.7	31.7		9.0	79.3	31.7					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	5.0	65.0	32.0		5.0	65.0	32.0					
Max Q Clear Time (g_c+I1), s	3.6	2.0	24.7		4.0	45.2	14.8					
Green Ext Time (p_c), s	0.0	8.5	1.0		0.0	9.8	0.2					
Intersection Summary												
HCM 6th Ctrl Delay	17.7											
HCM 6th LOS	B											
Notes												

HCM 6th TWSC
9: S Riverside Ave & Singleton Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	35	1187	7	9	1397
Future Vol, veh/h	0	35	1187	7	9	1397
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	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	1187	7	9	1397
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	597	0	0	1194	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	446	-	-	580	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	446	-	-	580	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	13.8	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	446	580	-	
HCM Lane V/C Ratio	-	-	0.078	0.016	-	
HCM Control Delay (s)	-	-	13.8	11.3	-	
HCM Lane LOS	-	-	B	B	-	
HCM 95th %tile Q(veh)	-	-	0.3	0	-	

HCM 6th Signalized Intersection Summary 10: S Riverside Ave & Agua Mansa Rd

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	423	184	76	175	115	132	819	82	113	1099	156
Future Volume (veh/h)	170	423	184	76	175	115	132	819	82	113	1099	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1604	1604	1604	1767	1767	1767	1781	1781	1781
Adj Flow Rate, veh/h	170	423	184	76	175	115	132	819	82	113	1099	156
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	9	9	9	20	20	20	9	9	9	8	8	8
Cap, veh/h	210	468	396	105	376	234	169	1274	127	147	1352	603
Arrive On Green	0.12	0.26	0.26	0.07	0.21	0.21	0.10	0.41	0.41	0.17	0.80	0.80
Sat Flow, veh/h	1682	1767	1497	1527	1803	1122	1682	3081	308	1697	3385	1510
Grp Volume(v), veh/h	170	423	184	76	146	144	132	446	455	113	1099	156
Grp Sat Flow(s),veh/h/ln	1682	1767	1497	1527	1523	1402	1682	1678	1711	1697	1692	1510
Q Serve(g_s), s	11.8	27.8	12.4	5.9	10.1	10.8	9.2	25.5	25.5	7.6	22.3	3.1
Cycle Q Clear(g_c), s	11.8	27.8	12.4	5.9	10.1	10.8	9.2	25.5	25.5	7.6	22.3	3.1
Prop In Lane	1.00		1.00	1.00		0.80	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	210	468	396	105	318	292	169	694	707	147	1352	603
V/C Ratio(X)	0.81	0.90	0.46	0.73	0.46	0.49	0.78	0.64	0.64	0.77	0.81	0.26
Avail Cap(c_a), veh/h	294	501	424	115	318	292	182	694	707	156	1352	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	51.1	42.7	37.0	54.8	41.6	41.9	52.7	28.1	28.1	48.4	9.5	7.6
Incr Delay (d2), s/veh	10.9	19.1	0.8	18.6	1.0	1.3	18.1	4.5	4.5	19.5	5.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	14.1	4.5	2.7	3.8	3.7	4.6	10.3	10.5	3.7	4.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	61.8	37.8	73.4	42.6	43.2	70.7	32.7	32.6	67.9	14.9	8.6
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	B	A
Approach Vol, veh/h		777			366			1033			1368	
Approach Delay, s/veh		56.2			49.2			37.5			18.6	
Approach LOS		E			D			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	54.6	13.2	36.8	17.1	52.9	20.0	30.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	10.0	45.0	8.0	33.0	12.0	43.0	20.0	21.0				
Max Q Clear Time (g_c+I1), s	9.6	27.5	7.9	29.8	11.2	24.3	13.8	12.8				
Green Ext Time (p_c), s	0.0	4.6	0.0	1.0	0.0	7.2	0.2	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			35.5									
HCM 6th LOS			D									

HCM 6th TWSC
11: Industrial Dr & Fortuna Way

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

Intersection						
Int Delay, s/veh	6.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	103	73	41	59	12
Future Vol, veh/h	54	103	73	41	59	12
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	100	100	100	100	100	100
Heavy Vehicles, %	50	50	50	50	50	50
Mvmt Flow	54	103	73	41	59	12
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	224	94	0	0	114	0
Stage 1	94	-	-	-	-	-
Stage 2	130	-	-	-	-	-
Critical Hdwy	6.9	6.7	-	-	4.6	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.75	-	-	2.65	-
Pot Cap-1 Maneuver	669	846	-	-	1224	-
Stage 1	822	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	636	846	-	-	1224	-
Mov Cap-2 Maneuver	636	-	-	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11	0		6.7		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	760	1224	-	
HCM Lane V/C Ratio	-	-	0.207	0.048	-	
HCM Control Delay (s)	-	-	11	8.1	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.8	0.2	-	

HCM 6th TWSC
12: Enterprise Dr & Resource Dr

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	146	75	208	81	94
Future Vol, veh/h	275	146	75	208	81	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	275	146	75	208	81	94

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	421
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1138
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1138
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	484	695	-	-	1138	-
HCM Lane V/C Ratio	0.167	0.135	-	-	0.066	-
HCM Control Delay (s)	13.9	11	-	-	8.4	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.2	-

HCM 6th Signalized Intersection Summary

3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)

Existing + Growth + Cumulative + Project AM Improved

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	379	8	752	0	0	0	0	1329	684	426	1643	0
Future Volume (veh/h)	379	8	752	0	0	0	0	1329	684	426	1643	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	1693	1693	1693				0	1574	1574	1796	1796	0
Adj Flow Rate, veh/h	255	0	890				0	1329	684	426	1643	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14				0	22	22	7	7	0
Cap, veh/h	501	0	892				0	1623	504	479	2833	0
Arrive On Green	0.31	0.00	0.31				0.00	0.38	0.38	0.14	0.58	0.00
Sat Flow, veh/h	1612	0	2869				0	4439	1334	3319	5065	0
Grp Volume(v), veh/h	255	0	890				0	1329	684	426	1643	0
Grp Sat Flow(s),veh/h/ln	1612	0	1434				0	1432	1334	1659	1635	0
Q Serve(g_s), s	11.7	0.0	27.9				0.0	25.1	34.0	11.3	19.1	0.0
Cycle Q Clear(g_c), s	11.7	0.0	27.9				0.0	25.1	34.0	11.3	19.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	501	0	892				0	1623	504	479	2833	0
V/C Ratio(X)	0.51	0.00	1.00				0.00	0.82	1.36	0.89	0.58	0.00
Avail Cap(c_a), veh/h	501	0	892				0	1623	504	479	2833	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	25.4	0.0	31.0				0.0	25.2	28.0	37.8	12.1	0.0
Incr Delay (d2), s/veh	0.8	0.0	29.4				0.0	4.7	173.4	18.2	0.9	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	4.5	0.0	12.9				0.0	8.1	33.6	5.5	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	0.0	60.4				0.0	30.0	201.4	55.9	12.9	0.0
LnGrp LOS	C	A	E				A	C	F	E	B	A
Approach Vol, veh/h	1145						2013			2069		
Approach Delay, s/veh	52.8						88.2			21.8		
Approach LOS	D						F			C		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	18.0	39.0	33.0		57.0							
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0							
Max Green Setting (Gmax), s	12.0	33.0	27.0		51.0							
Max Q Clear Time (g_c+I1), s	13.3	36.0	29.9		21.1							
Green Ext Time (p_c), s	0.0	0.0	0.0		13.2							

Intersection Summary

HCM 6th Ctrl Delay 54.2

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary 4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM Improved

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	21	135	38	29	61	142	1459	32	44	1765	569
Future Volume (veh/h)	424	21	135	38	29	61	142	1459	32	44	1765	569
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1693	1693	1693	1455	1455	1455	1500	1500	1500	1722	1722	1722
Adj Flow Rate, veh/h	424	21	135	38	29	61	142	1459	32	44	1765	569
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	14	14	14	30	30	30	27	27	27	12	12	12
Cap, veh/h	632	410	348	306	335	299	182	2207	48	81	2148	667
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.13	0.54	0.54	0.05	0.46	0.46
Sat Flow, veh/h	2294	1693	1434	958	1383	1233	1428	4123	90	1640	4701	1459
Grp Volume(v), veh/h	424	21	135	38	29	61	142	966	525	44	1765	569
Grp Sat Flow(s),veh/h/ln	1147	1693	1434	958	1383	1233	1428	1365	1484	1640	1567	1459
Q Serve(g_s), s	15.7	0.8	6.8	2.7	1.4	3.4	8.3	22.1	22.1	2.3	28.3	30.1
Cycle Q Clear(g_c), s	19.1	0.8	6.8	3.6	1.4	3.4	8.3	22.1	22.1	2.3	28.3	30.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	632	410	348	306	335	299	182	1461	794	81	2148	667
V/C Ratio(X)	0.67	0.05	0.39	0.12	0.09	0.20	0.78	0.66	0.66	0.54	0.82	0.85
Avail Cap(c_a), veh/h	632	410	348	306	335	299	214	1481	805	133	2225	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	25.2	27.5	26.5	25.4	26.2	36.6	14.5	14.5	40.2	20.5	20.9
Incr Delay (d2), s/veh	2.8	0.1	0.7	0.2	0.1	0.3	14.3	1.1	2.0	5.6	2.5	9.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.3	2.3	0.6	0.4	1.0	3.4	5.6	6.3	1.0	9.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	25.2	28.2	26.7	25.5	26.5	51.0	15.6	16.5	45.9	23.0	30.8
LnGrp LOS	D	C	C	C	C	C	D	B	B	D	C	C
Approach Vol, veh/h	580			128			1633			2378		
Approach Delay, s/veh	34.2			26.3			18.9			25.3		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	51.4		26.0	16.1	44.6		26.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	6.0	46.0		20.0	12.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	4.3	24.1		21.1	10.3	32.1		5.6				
Green Ext Time (p_c), s	0.0	9.7		0.0	0.1	6.5		0.5				
Intersection Summary												
HCM 6th Ctrl Delay	24.2											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project AM Improved

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	349	79	125	55	74	125	100	1199	61	240	1341	295
Future Volume (veh/h)	349	79	125	55	74	125	100	1199	61	240	1341	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1411	1411	1411	625	625	625	1574	1574	1574	1678	1678	1678
Adj Flow Rate, veh/h	349	79	125	55	74	125	100	1199	61	240	1341	295
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	33	33	33	86	86	86	22	22	22	15	15	15
Cap, veh/h	323	176	278	173	224	189	117	1334	68	250	1491	328
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.08	0.32	0.32	0.16	0.40	0.40
Sat Flow, veh/h	893	492	779	394	625	530	1499	4187	213	1598	3757	826
Grp Volume(v), veh/h	349	0	204	55	74	125	100	820	440	240	1090	546
Grp Sat Flow(s),veh/h/ln	893	0	1271	394	625	530	1499	1432	1536	1598	1527	1529
Q Serve(g_s), s	24.3	0.0	11.0	11.1	7.7	17.8	5.9	24.5	24.5	13.3	30.0	30.0
Cycle Q Clear(g_c), s	32.0	0.0	11.0	22.1	7.7	17.8	5.9	24.5	24.5	13.3	30.0	30.0
Prop In Lane	1.00		0.61	1.00		1.00	1.00		0.14	1.00		0.54
Lane Grp Cap(c), veh/h	323	0	454	173	224	189	117	913	489	250	1212	607
V/C Ratio(X)	1.08	0.00	0.45	0.32	0.33	0.66	0.85	0.90	0.90	0.96	0.90	0.90
Avail Cap(c_a), veh/h	323	0	454	173	224	189	117	928	497	250	1228	615
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(l)	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	35.6	0.0	22.0	30.5	21.0	24.2	40.8	29.1	29.1	37.5	25.3	25.3
Incr Delay (d2), s/veh	73.7	0.0	0.7	1.0	0.9	8.2	42.0	11.4	18.9	45.9	9.1	16.3
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	13.5	0.0	3.2	1.1	1.1	2.5	3.4	8.9	10.5	8.0	10.8	12.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	109.4	0.0	22.7	31.5	21.8	32.3	82.8	40.5	48.0	83.4	34.4	41.6
LnGrp LOS	F	A	C	C	C	C	F	D	D	F	C	D
Approach Vol, veh/h		553			254			1360			1876	
Approach Delay, s/veh		77.4			29.1			46.1			42.8	
Approach LOS		E			C			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.0	33.5		37.0	12.0	40.5		37.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	13.0	28.0		31.0	6.0	35.0		31.0				
Max Q Clear Time (g_c+I1), s	15.3	26.5		34.0	7.9	32.0		24.1				
Green Ext Time (p_c), s	0.0	1.0		0.0	0.0	2.3		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			47.8									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 3: S Riverside Ave & I-10 EB ramps

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	632	0	690	0	0	0	0	1752	908	511	1737	0
Future Volume (veh/h)	632	0	690	0	0	0	0	1752	908	511	1737	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	1767	1767	1767				0	1781	1781	1796	1796	0
Adj Flow Rate, veh/h	856	0	450				0	1752	908	511	1737	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	9	9	9				0	8	8	7	7	0
Cap, veh/h	972	0	433				0	1891	587	516	2942	0
Arrive On Green	0.29	0.00	0.29				0.00	0.39	0.39	0.16	0.60	0.00
Sat Flow, veh/h	3365	0	1497				0	5024	1510	3319	5065	0
Grp Volume(v), veh/h	856	0	450				0	1752	908	511	1737	0
Grp Sat Flow(s),veh/h/ln	1682	0	1497				0	1621	1510	1659	1635	0
Q Serve(g_s), s	21.8	0.0	26.0				0.0	31.0	35.0	13.8	19.7	0.0
Cycle Q Clear(g_c), s	21.8	0.0	26.0				0.0	31.0	35.0	13.8	19.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	972	0	433				0	1891	587	516	2942	0
V/C Ratio(X)	0.88	0.00	1.04				0.00	0.93	1.55	0.99	0.59	0.00
Avail Cap(c_a), veh/h	972	0	433				0	1891	587	516	2942	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	30.5	0.0	32.0				0.0	26.3	27.5	37.9	11.1	0.0
Incr Delay (d2), s/veh	9.4	0.0	54.2				0.0	9.3	254.3	36.9	0.9	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	9.8	0.0	15.6				0.0	11.9	52.3	7.8	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.0	86.2				0.0	35.6	281.8	74.8	12.0	0.0
LnGrp LOS	D	A	F				A	D	F	E	B	A
Approach Vol, veh/h	1306						2660			2248		
Approach Delay, s/veh	55.9						119.7			26.3		
Approach LOS	E						F			C		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.0	40.0		31.0		59.0						
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0						
Max Green Setting (Gmax), s	13.0	34.0		25.0		53.0						
Max Q Clear Time (g_c+l1), s	15.8	37.0		28.0		21.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		14.6						
Intersection Summary												
HCM 6th Ctrl Delay			72.5									
HCM 6th LOS			E									
Notes												

HCM 6th Signalized Intersection Summary 4: S Riverside Ave & Slover Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	566	124	209	37	31	82	86	1852	31	58	1943	422
Future Volume (veh/h)	566	124	209	37	31	82	86	1852	31	58	1943	422
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1411	1411	1411	1767	1767	1767	1707	1707	1707
Adj Flow Rate, veh/h	566	124	209	37	31	82	86	1852	31	58	1943	422
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	7	7	7	33	33	33	9	9	9	13	13	13
Cap, veh/h	563	413	350	64	144	129	127	2111	35	94	1933	600
Arrive On Green	0.17	0.23	0.23	0.05	0.11	0.11	0.08	0.43	0.43	0.06	0.41	0.41
Sat Flow, veh/h	3319	1796	1522	1344	1340	1196	1682	4885	82	1626	4661	1447
Grp Volume(v), veh/h	566	124	209	37	31	82	86	1219	664	58	1943	422
Grp Sat Flow(s),veh/h/ln	1659	1796	1522	1344	1340	1196	1682	1608	1752	1626	1554	1447
Q Serve(g_s), s	13.5	4.5	9.8	2.1	1.7	5.2	4.0	27.6	27.6	2.8	33.0	19.2
Cycle Q Clear(g_c), s	13.5	4.5	9.8	2.1	1.7	5.2	4.0	27.6	27.6	2.8	33.0	19.2
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	563	413	350	64	144	129	127	1390	757	94	1933	600
V/C Ratio(X)	1.01	0.30	0.60	0.58	0.21	0.64	0.68	0.88	0.88	0.62	1.01	0.70
Avail Cap(c_a), veh/h	563	560	474	130	320	286	127	1390	757	123	1933	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	25.4	27.4	37.1	32.4	34.0	35.8	20.7	20.7	36.6	23.3	19.2
Incr Delay (d2), s/veh	39.2	0.4	1.6	8.0	0.7	5.1	13.5	8.1	13.7	6.4	21.7	6.8
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	8.1	1.8	3.4	0.8	0.5	1.6	2.0	9.9	12.0	1.2	13.7	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	25.8	29.0	45.1	33.2	39.1	49.4	28.7	34.3	43.0	45.0	26.0
LnGrp LOS	F	C	C	D	C	D	D	C	C	D	F	C
Approach Vol, veh/h		899			150			1969			2423	
Approach Delay, s/veh		55.8			39.4			31.5			41.6	
Approach LOS		E			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	39.4	7.3	23.3	11.0	38.0	17.0	13.6				
Change Period (Y+Rc), s	6.0	6.0	4.5	6.0	6.0	6.0	4.5	6.0				
Max Green Setting (Gmax), s	5.0	32.0	6.7	23.8	5.0	32.0	12.5	18.0				
Max Q Clear Time (g_c+I1), s	4.8	29.6	4.1	11.8	6.0	35.0	15.5	7.2				
Green Ext Time (p_c), s	0.0	2.0	0.0	1.0	0.0	0.0	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary 5: S Riverside Ave & Santa Ana Ave

Anglus Block Facility (Rialto, CA)
Existing + Growth + Cumulative + Project PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	34	147	67	20	117	103	1572	41	185	1717	246
Future Volume (veh/h)	252	34	147	67	20	117	103	1572	41	185	1717	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1633	1633	1633	1752	1752	1752	1707	1707	1707
Adj Flow Rate, veh/h	252	34	147	67	20	117	103	1572	41	185	1717	246
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	13	13	13	18	18	18	10	10	10	13	13	13
Cap, veh/h	369	72	313	248	423	358	116	2160	56	189	2049	292
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.07	0.45	0.45	0.12	0.50	0.50
Sat Flow, veh/h	1143	280	1210	1051	1633	1384	1668	4793	125	1626	4122	587
Grp Volume(v), veh/h	252	0	181	67	20	117	103	1046	567	185	1292	671
Grp Sat Flow(s),veh/h/ln	1143	0	1490	1051	1633	1384	1668	1594	1729	1626	1554	1602
Q Serve(g_s), s	18.3	0.0	8.8	4.9	0.8	5.9	5.3	23.1	23.1	9.8	30.8	31.2
Cycle Q Clear(g_c), s	19.1	0.0	8.8	13.8	0.8	5.9	5.3	23.1	23.1	9.8	30.8	31.2
Prop In Lane	1.00		0.81	1.00		1.00	1.00		0.07	1.00		0.37
Lane Grp Cap(c), veh/h	369	0	386	248	423	358	116	1437	779	189	1545	796
V/C Ratio(X)	0.68	0.00	0.47	0.27	0.05	0.33	0.89	0.73	0.73	0.98	0.84	0.84
Avail Cap(c_a), veh/h	379	0	398	257	437	370	116	1556	844	189	1661	856
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	31.1	0.0	26.9	32.7	23.9	25.8	39.7	19.3	19.3	37.9	18.6	18.7
Incr Delay (d2), s/veh	4.8	0.0	0.9	0.6	0.0	0.5	49.8	1.6	2.9	59.1	3.7	7.3
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	5.2	0.0	3.1	1.2	0.3	1.9	3.6	7.4	8.3	6.7	9.6	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	0.0	27.8	33.3	24.0	26.3	89.5	20.9	22.3	97.1	22.3	26.0
LnGrp LOS	D	A	C	C	C	C	F	C	C	F	C	C
Approach Vol, veh/h		433			204			1716			2148	
Approach Delay, s/veh		32.5			28.4			25.5			29.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	43.8		27.3	11.0	47.8		27.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	41.0		22.0	5.0	45.0		22.0				
Max Q Clear Time (g_c+I1), s	11.8	25.1		21.1	7.3	33.2		15.8				
Green Ext Time (p_c), s	0.0	8.7		0.2	0.0	8.6		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			28.4									
HCM 6th LOS			C									

Appendix G – Cumulative Project Assumptions

1. Where Traffic Impact Studies were available, PCE volumes were added directly to the turning movements at those intersections analyzed for those projects.
2. All other cumulative projects were assumed to access S. Riverside Avenue through the closest side street, with 80% of traffic traveling to I-10 and the remaining traffic traveling away from I-10. So, cumulative projects located north of I-10 were assumed to have 20% of their traffic distributed northward along S Riverside Avenue and 80% to I-10 via S Riverside Avenue. Cumulative projects located south of I-10 were assumed to have 80% of their traffic accessing I-10 via S. Riverside Avenue and 20% distributed southward via S Riverside Avenue. Trip generation results for these projects were summarized in Table 7 of the report.

Appendix H – Signal Warrant Analyses

STUDY AND ANALYSIS INFORMATION

Analysis Date: 2021 Cumulative Build

Conducted By: NV5

Agency/Company Name: NV5

Is the intersection in a built-up area of an isolated community of <10,000 population? No

Major Street Information

Major Street Name and Route Number: Riverside Ave

Major Street Approach #1 Direction: N-Bound

Major Street Approach #2 Direction: S-Bound

Number of Lanes for Moving Traffic on Each Major Street Approach: 3 LANE(S)

Speed Limit or 85th Percentile Speed on the Major Street: 55 MPH

Minor Street Information

Minor Street Name and Route Number: Industrial Drive

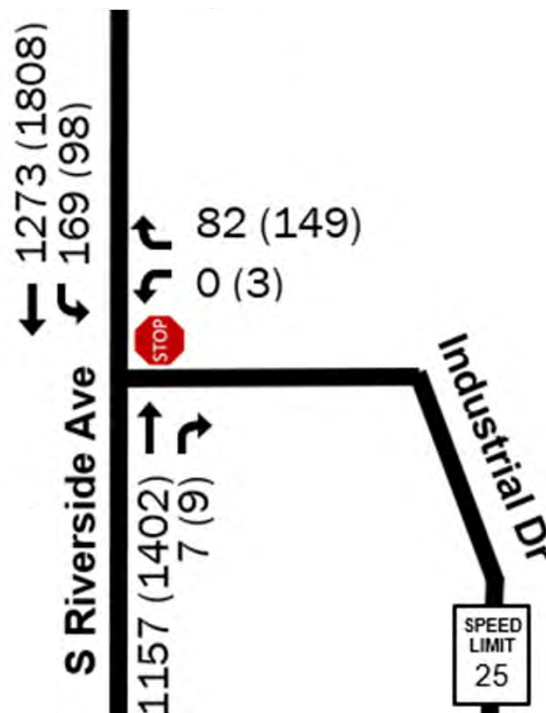
Minor Street Approach #1 Direction: W-Bound

Minor Street Approach #2 Direction: N/A

Number of Lanes for Moving Traffic on Each Minor Street Approach: 1 LANE(S)

TRAFFIC SIGNAL WARRANT ANALYSIS FINDINGS

	Applicable?	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume	Yes	No
Warrant 2, Four-Hour Vehicular Volume	Yes	No
Warrant 3, Peak Hour	Yes	Yes



MUTCD WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach

Major Street:	2 or More Lanes
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?

Yes

Combination of Conditions A and B Necessary?*

No

**Only applicable for Warrant 1 if after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems. See Section 4C.02 of the 2009 MUTCD for application.*

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84
2 or More	1	600	480	420	336	150	120	105	84
2 or More	2 or More	600	480	420	336	200	160	140	112
1	2 or More	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	750	600	525	420	75	60	53	42
2 or More	1	900	720	630	504	75	60	53	42
2 or More	2 or More	900	720	630	504	100	80	70	56
1	2 or More	750	600	525	420	100	80	70	56

Condition A Evaluation

Number of Unique Hours Met: 1

Condition A Satisfied? No

Condition B Evaluation

Number of Unique Hours Met: 2

Condition B Satisfied? No

Combination of Condition A and Condition B Evaluation

Number of Unique Hours Met for Condition A: N/A

Number of Unique Hours Met for Condition B: N/A

Combination of Condition A and Condition B Satisfied? N/A

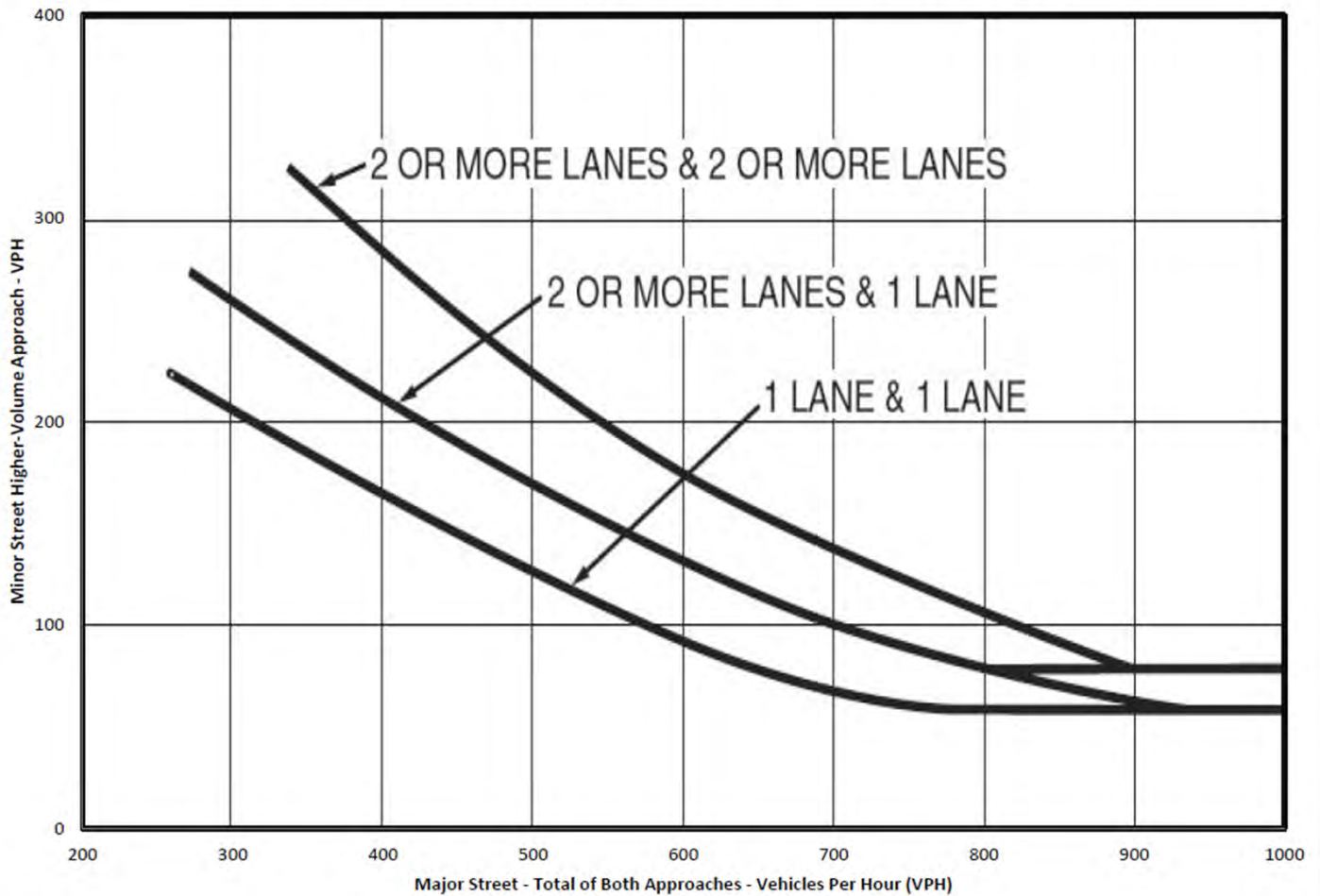
MUTCD WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	1 Lane

Total Number of Unique Hours Met On Figure 4C-2
2

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	Yes
---	-----

MUTCD Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



Total Major Street Traffic is greater than 1,000 vph.
Side Street Traffic is 82/152 vph in the AM/PM peak hours.

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	1 Lane

Total Number of Unique Hours Met
On Figure 4C-4

2

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?

Yes

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?

Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*

Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?

No

Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?

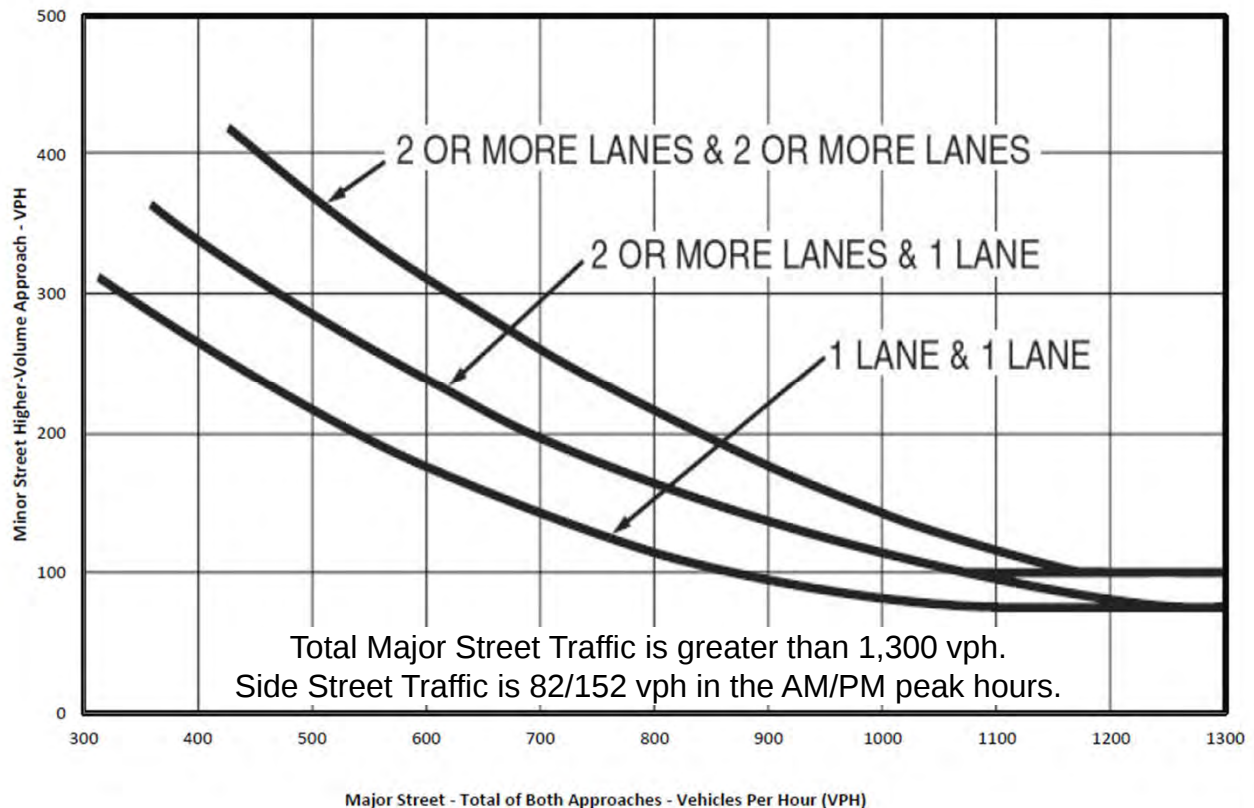
Yes in the PM

Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?

Yes

**If applicable, attach all supporting calculations and documentation.*

MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



STUDY AND ANALYSIS INFORMATION

Analysis Date: 2021 Cumulative Build
 Conducted By: NV5
 Agency/Company Name: NV5

Major Street Information

Major Street Name and Route Number: Riverside Ave

Major Street Approach #1 Direction: N-Bound

Major Street Approach #2 Direction: S-Bound

Number of Lanes for Moving Traffic on Each Major Street Approach: 3 LANE(S)

Speed Limit or 85th Percentile Speed on the Major Street: 55 MPH

Minor Street Information

Minor Street Name and Route Number: Singleton Ave

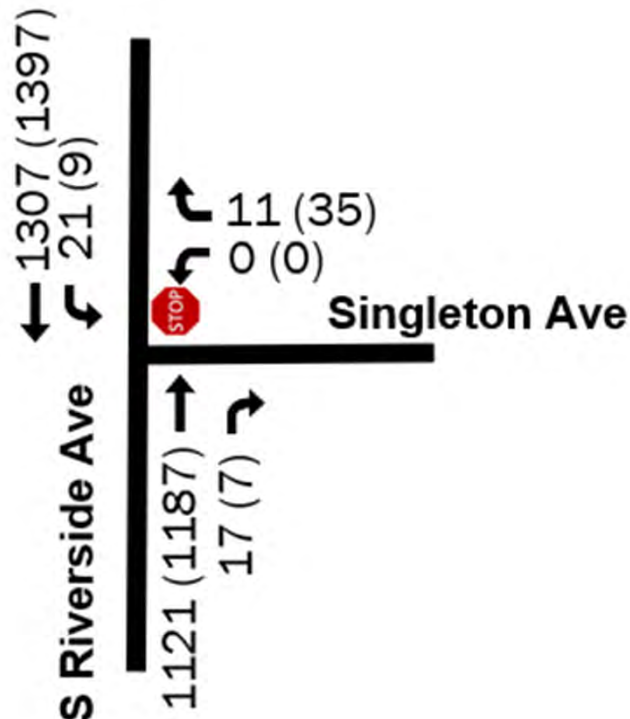
Minor Street Approach #1 Direction: W-Bound

Minor Street Approach #2 Direction: N/A

Number of Lanes for Moving Traffic on Each Minor Street Approach: 1 LANE(S)

TRAFFIC SIGNAL WARRANT ANALYSIS FINDINGS

	Applicable?	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume	Yes	No
Warrant 2, Four-Hour Vehicular Volume	Yes	No
Warrant 3, Peak Hour	Yes	No



MUTCD WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach

Major Street:	2 or More Lanes
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?

Yes

Combination of Conditions A and B Necessary?*: No

*Only applicable for Warrant 1 if after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems. See Section 4C.02 of the 2009 MUTCD for application.

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84
2 or More	1	600	480	420	336	150	120	105	84
2 or More	2 or More	600	480	420	336	200	160	140	112
1	2 or More	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	750	600	525	420	75	60	53	42
2 or More	1	900	720	630	504	75	60	53	42
2 or More	2 or More	900	720	630	504	100	80	70	56
1	2 or More	750	600	525	420	100	80	70	56

Condition A Evaluation

Number of Unique Hours Met: 0

Condition A Satisfied? No

Condition B Evaluation

Number of Unique Hours Met: 0

Condition B Satisfied? No

Combination of Condition A and Condition B Evaluation

Number of Unique Hours Met for Condition A: N/A

Number of Unique Hours Met for Condition B: N/A

Combination of Condition A and Condition B Satisfied? N/A

MUTCD WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	1 Lane

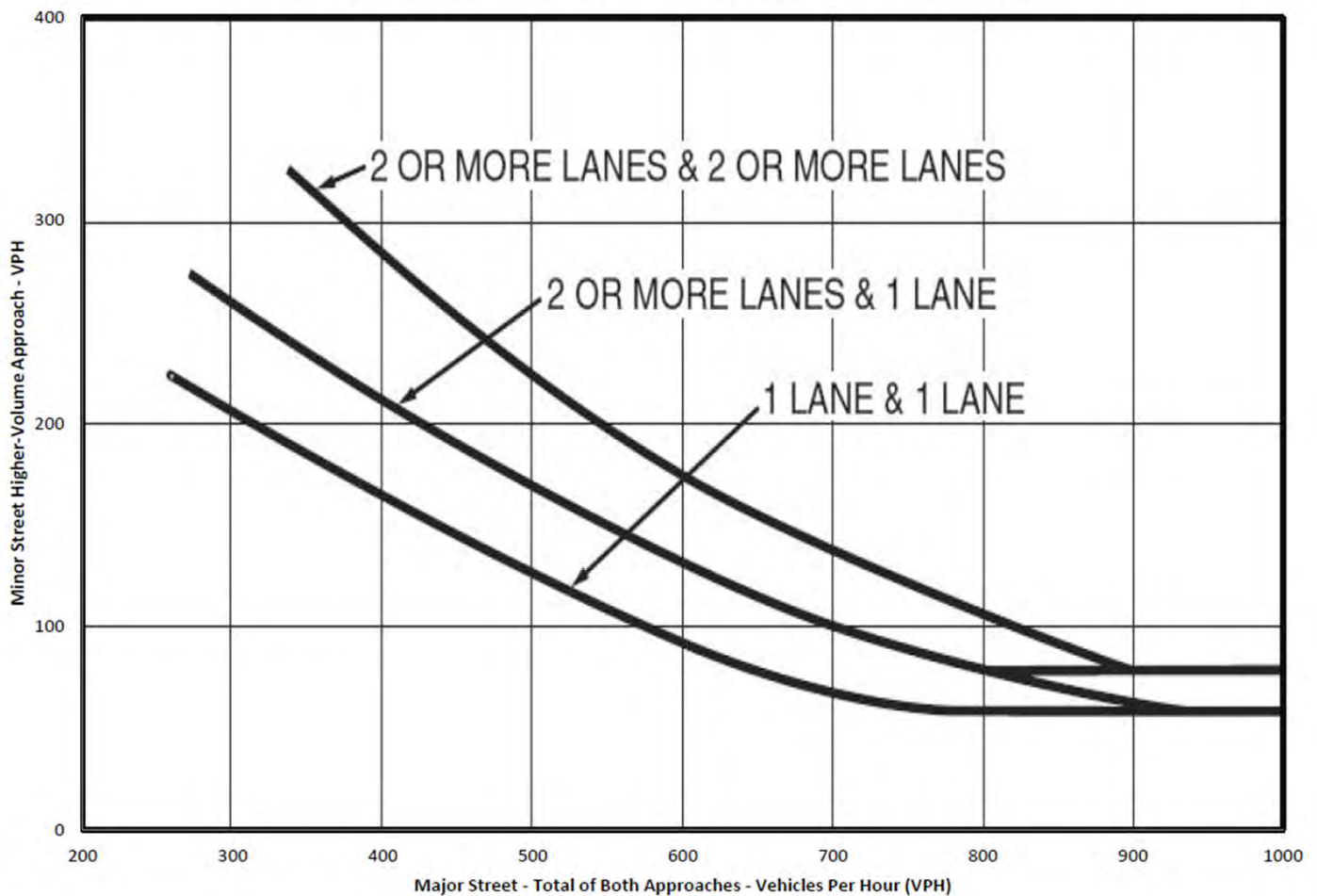
Total Number of Unique Hours Met
On Figure 4C-2

0

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH
on Major Street?

Yes

MUTCD Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



Total Major Street Traffic is greater than 1,000 vph.
Side Street Traffic is 11/34 vph in the AM/PM peak hours and are all right turns.

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	1 Lane

Total Number of Unique Hours Met On Figure 4C-4
0

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?

Yes

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?

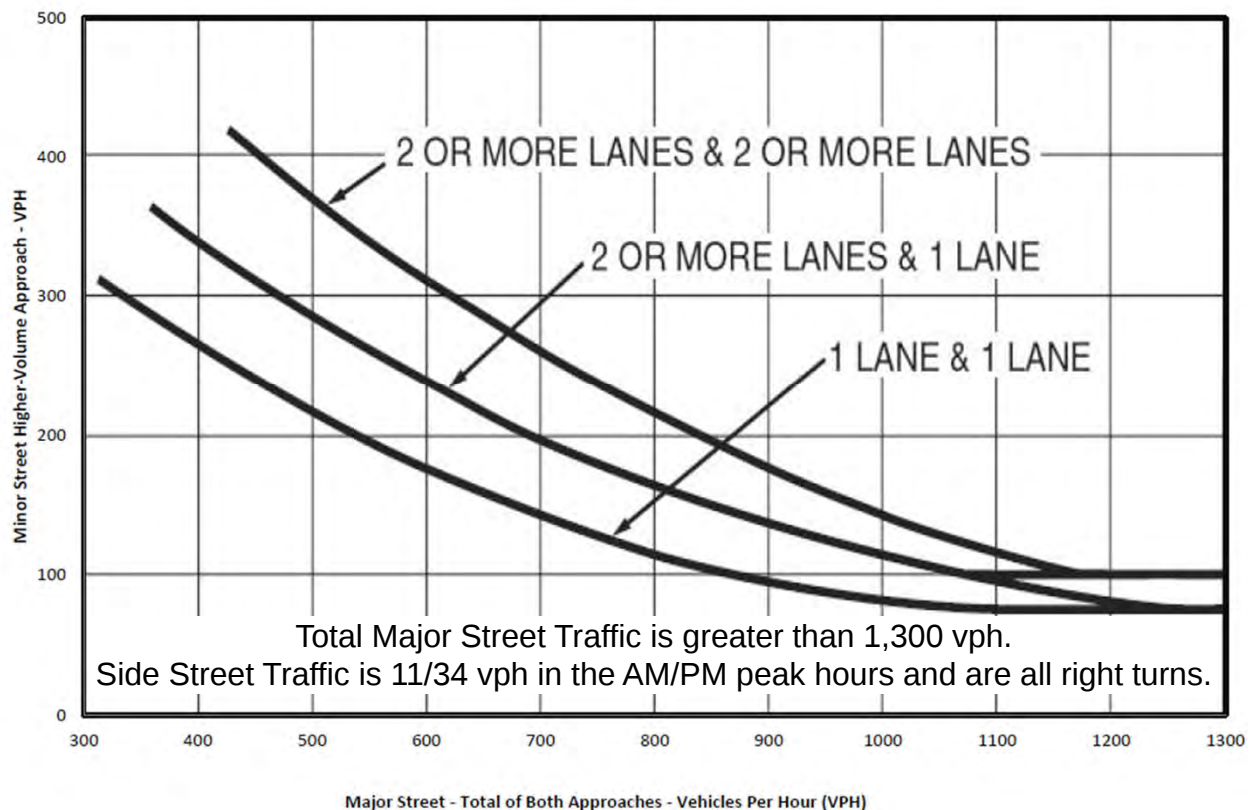
Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*

Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	No
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes in the PM
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes

**If applicable, attach all supporting calculations and documentation.*

MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



STUDY AND ANALYSIS INFORMATION

Analysis Date: 2021 Cumulative Build
 Conducted By: NV5
 Agency/Company Name: NV5

Is the intersection in a built-up area of an isolated community of <10,000 population? No

Major Street Information

Major Street Name and Route Number: Industrial Drive

Major Street Approach #1 Direction: N-Bound

Major Street Approach #2 Direction: S-Bound

Number of Lanes for Moving Traffic on Each Major Street Approach: 1 LANE(S)

Speed Limit or 85th Percentile Speed on the Major Street: 35 MPH

Minor Street Information

Minor Street Name and Route Number: Fortuna Drive

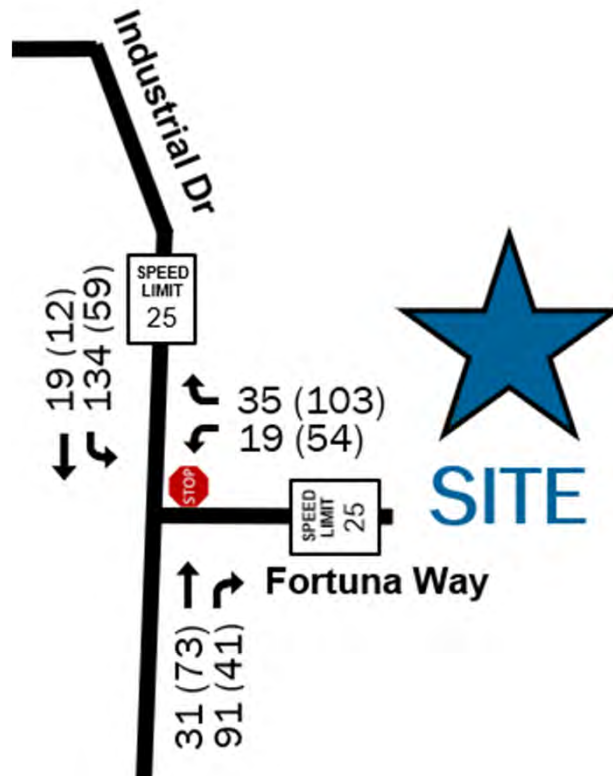
Minor Street Approach #1 Direction: W-Bound

Minor Street Approach #2 Direction: N/A

Number of Lanes for Moving Traffic on Each Minor Street Approach: 1 LANE(S)

TRAFFIC SIGNAL WARRANT ANALYSIS FINDINGS

	Applicable?	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume	Yes	No
Warrant 2, Four-Hour Vehicular Volume	Yes	No
Warrant 3, Peak Hour	Yes	No



MUTCD WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?

No

Combination of Conditions A and B Necessary?*: No

*Only applicable for Warrant 1 if after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems. See Section 4C.02 of the 2009 MUTCD for application.

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84
2 or More	1	600	480	420	336	150	120	105	84
2 or More	2 or More	600	480	420	336	200	160	140	112
1	2 or More	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	750	600	525	420	75	60	53	42
2 or More	1	900	720	630	504	75	60	53	42
2 or More	2 or More	900	720	630	504	100	80	70	56
1	2 or More	750	600	525	420	100	80	70	56

Condition A Evaluation

Number of Unique Hours Met: 0

Condition A Satisfied? No

Condition B Evaluation

Number of Unique Hours Met: 0

Condition B Satisfied? No

Combination of Condition A and Condition B Evaluation

Number of Unique Hours Met for Condition A: N/A

Number of Unique Hours Met for Condition B: N/A

Combination of Condition A and Condition B Satisfied? N/A

MUTCD WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach

Major Street: 1 Lane

Minor Street: 1 Lane

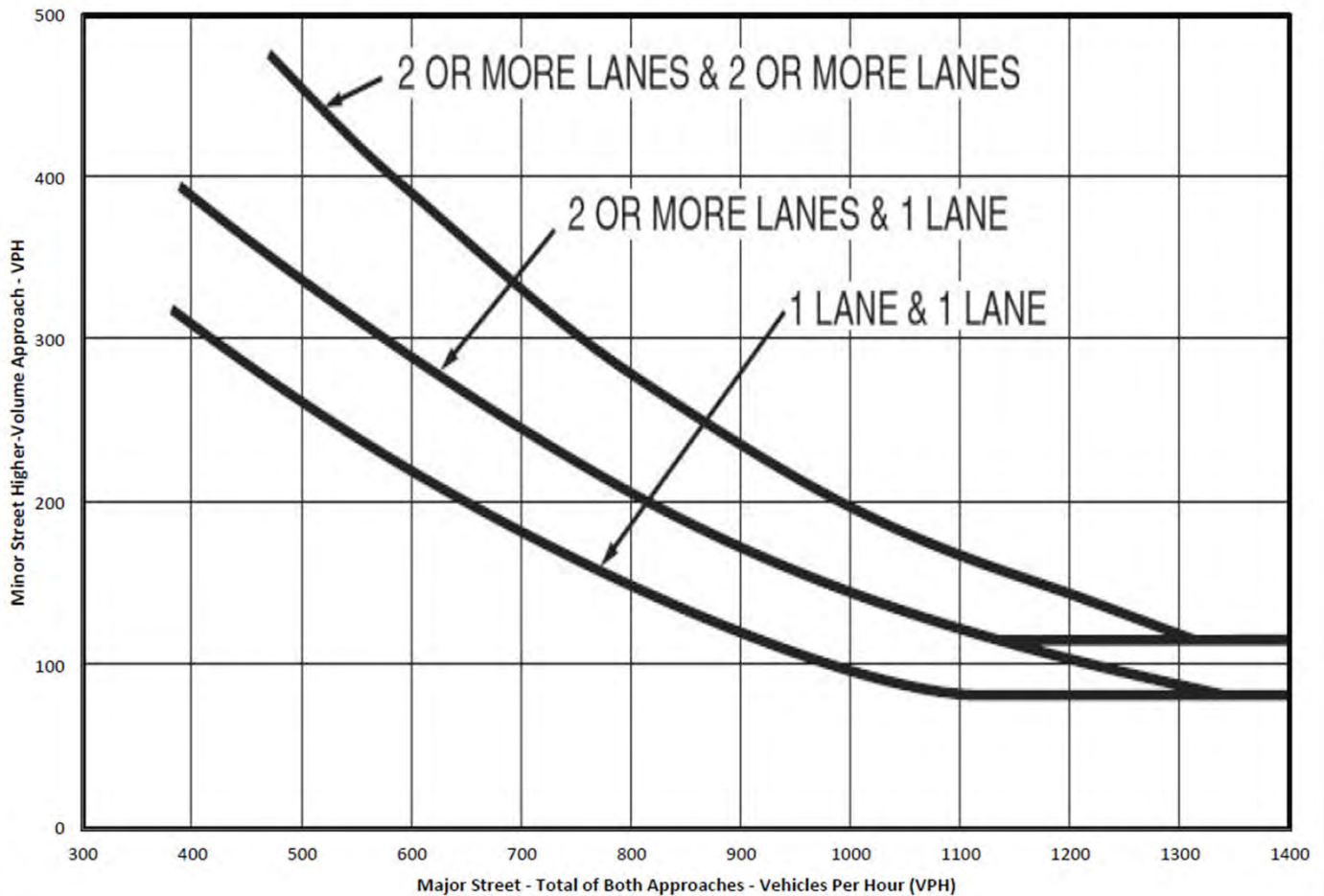
Total Number of Unique Hours Met On Figure 4C-1

0

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?

No

MUTCD Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



Total Major Street Traffic is less than 300 vph

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Total Number of Unique Hours Met On Figure 4C-3
0

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
---	----

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?

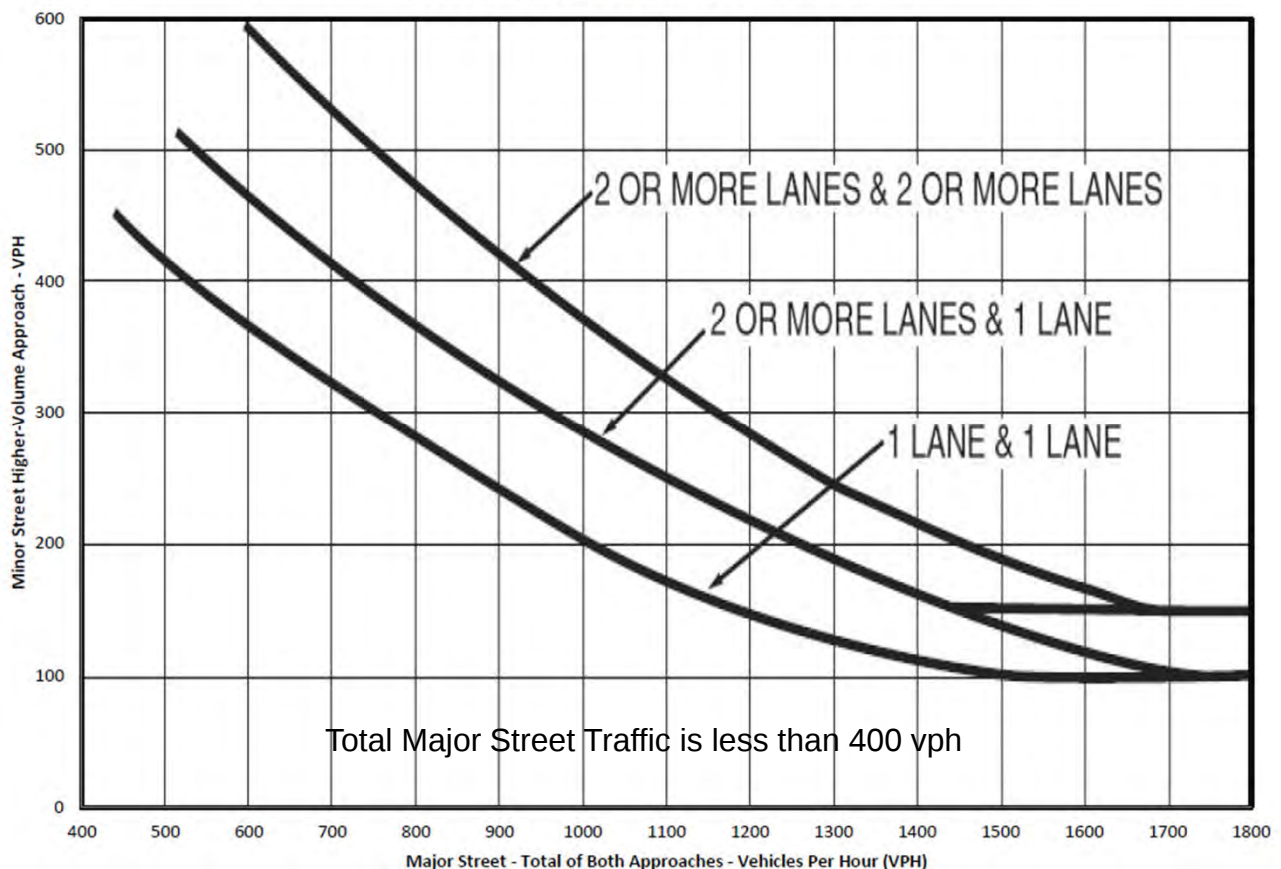
Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*

Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	No
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	No

**If applicable, attach all supporting calculations and documentation.*

MUTCD Figure 4C-3. Warrant 3, Peak Hour



STUDY AND ANALYSIS INFORMATION

Analysis Date: 2021 Cumulative Build
 Conducted By: NV5
 Agency/Company Name: NV5

Is the intersection in a built-up area of an isolated community of <10,000 population? No

Major Street Information

Major Street Name and Route Number: Industrial Drive

Major Street Approach #1 Direction: E-Bound

Major Street Approach #2 Direction: W-Bound

Number of Lanes for Moving Traffic on Each Major Street Approach: 1 LANE(S)

Speed Limit or 85th Percentile Speed on the Major Street: 35 MPH

Minor Street Information

Minor Street Name and Route Number: Resource Drive

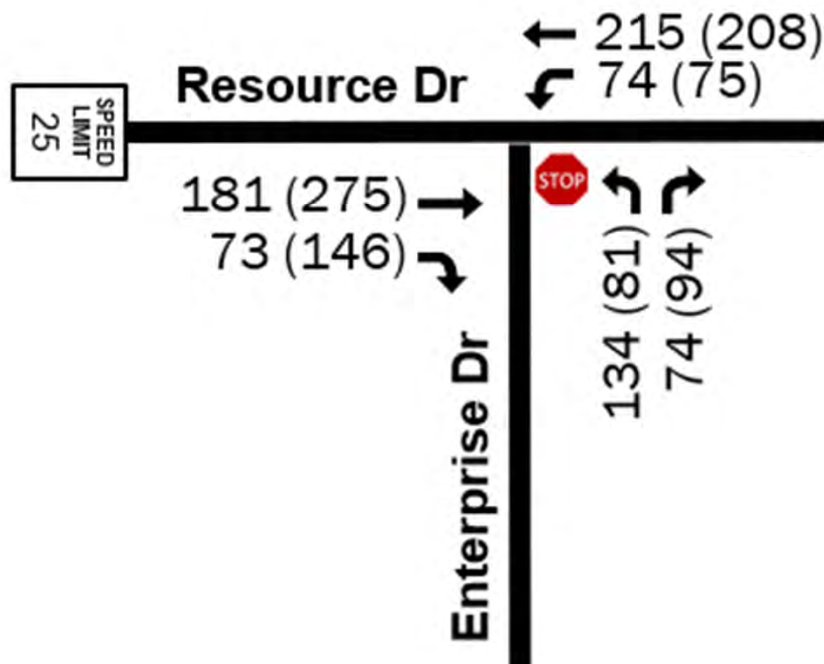
Minor Street Approach #1 Direction: N-Bound

Minor Street Approach #2 Direction: N/A

Number of Lanes for Moving Traffic on Each Minor Street Approach: 2 LANE(S)

TRAFFIC SIGNAL WARRANT ANALYSIS FINDINGS

	Applicable?	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume	Yes	No
Warrant 2, Four-Hour Vehicular Volume	Yes	No
Warrant 3, Peak Hour	Yes	No



MUTCD WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach

Major Street:	1 Lane
Minor Street:	2 or More Lanes

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?

No

Combination of Conditions A and B Necessary?*

No

**Only applicable for Warrant 1 if after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems. See Section 4C.02 of the 2009 MUTCD for application.*

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84
2 or More	1	600	480	420	336	150	120	105	84
2 or More	2 or More	600	480	420	336	200	160	140	112
1	2 or More	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	750	600	525	420	75	60	53	42
2 or More	1	900	720	630	504	75	60	53	42
2 or More	2 or More	900	720	630	504	100	80	70	56
1	2 or More	750	600	525	420	100	80	70	56

Condition A Evaluation

Number of Unique Hours Met: 1

Condition A Satisfied? No

Condition B Evaluation

Number of Unique Hours Met: 0

Condition B Satisfied? No

Combination of Condition A and Condition B Evaluation

Number of Unique Hours Met for Condition A: N/A

Number of Unique Hours Met for Condition B: N/A

Combination of Condition A and Condition B Satisfied? N/A

MUTCD WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach

Major Street: 1 Lane

Minor Street: 1 Lane

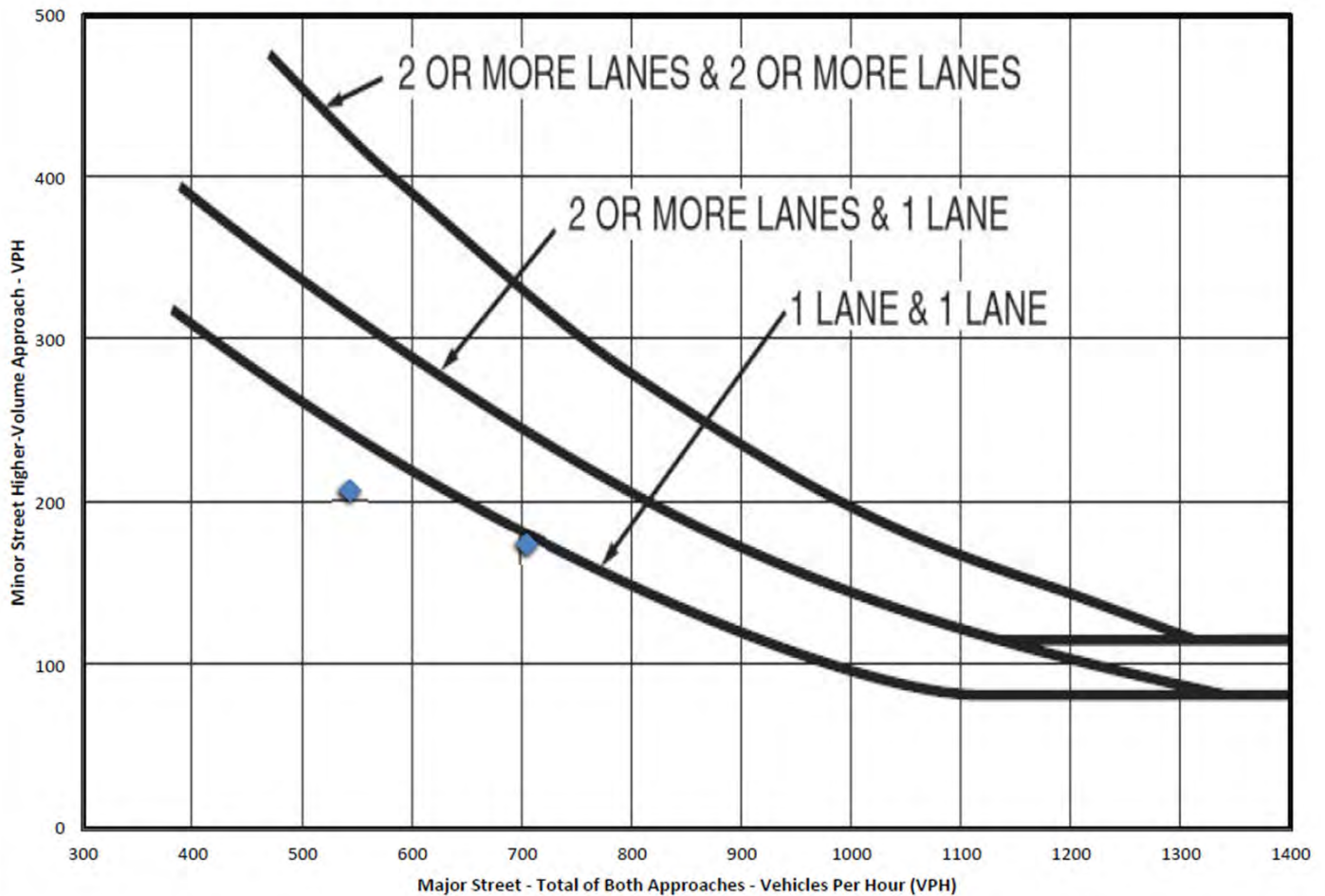
Total Number of Unique Hours Met On Figure 4C-1

0

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?

No

MUTCD Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Total Number of Unique Hours Met On Figure 4C-3
0

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
---	----

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?

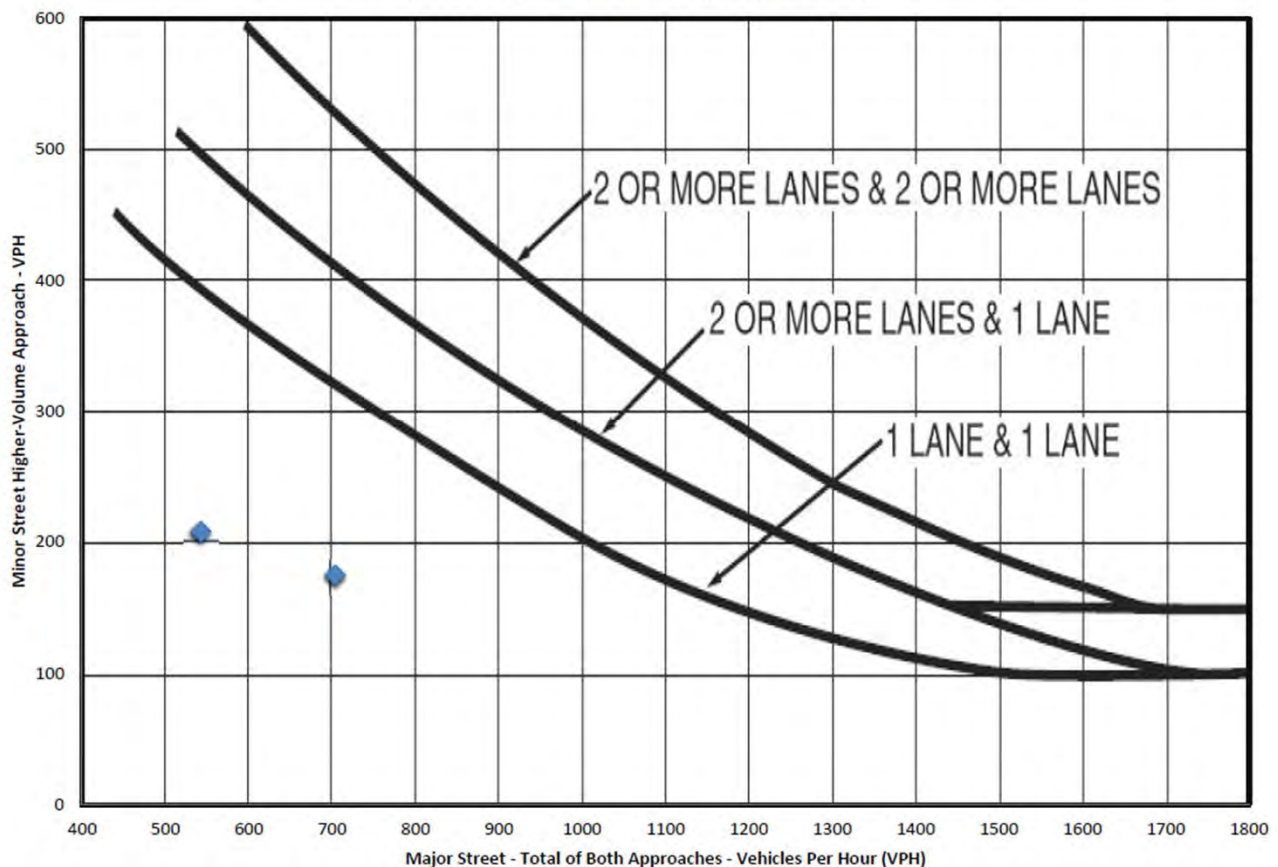
Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*

Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	No
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	No

**If applicable, attach all supporting calculations and documentation.*

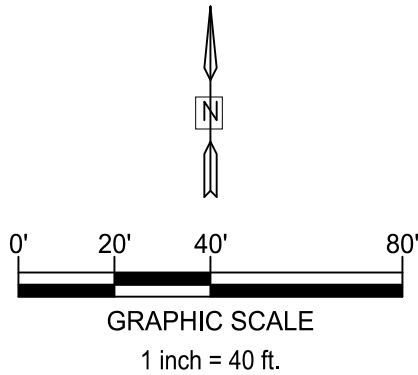
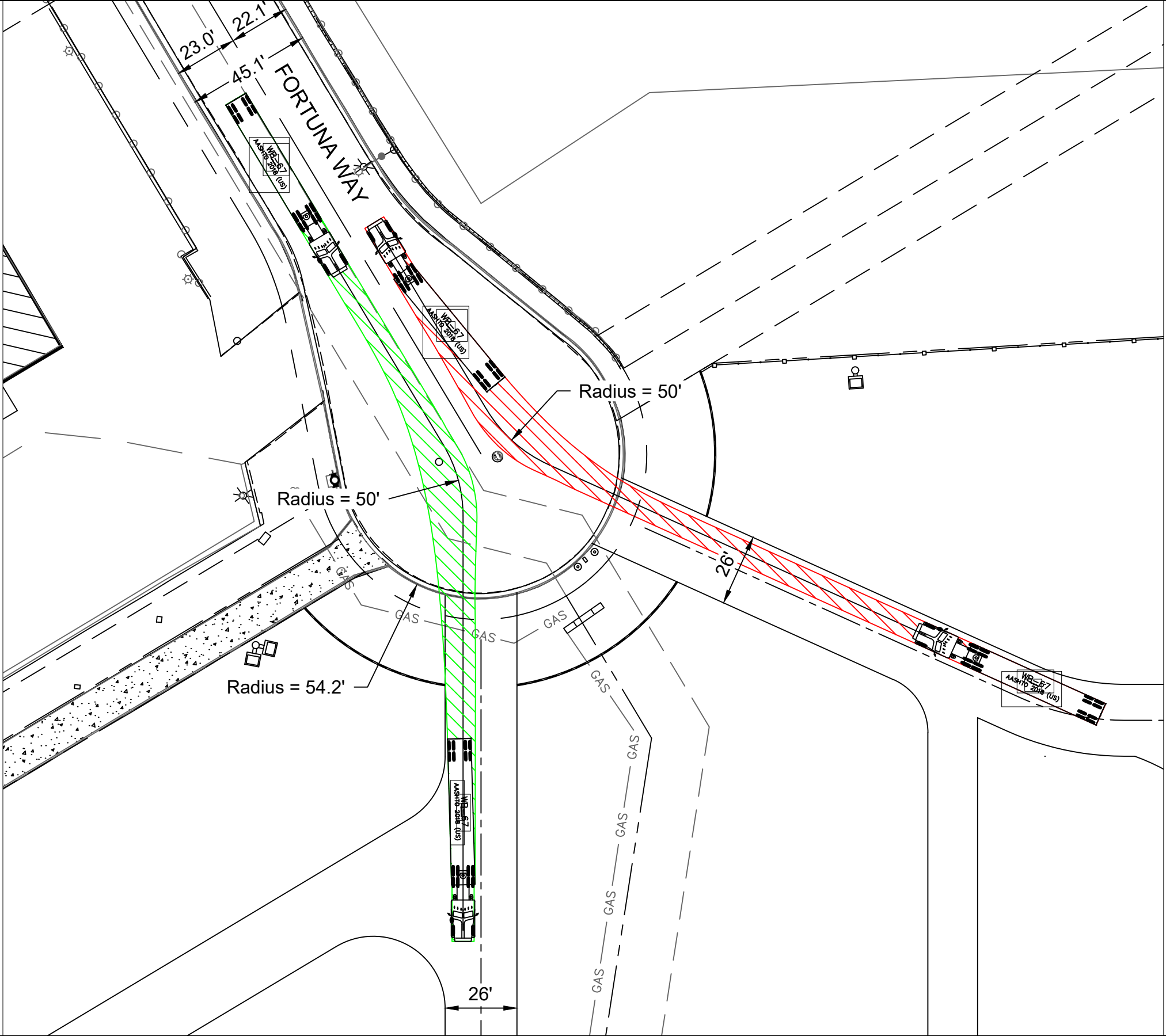
MUTCD Figure 4C-3. Warrant 3, Peak Hour



Appendix I – Truck Turning Template

LEGEND

- INGRESS
- EGRESS



DATE: 08/02/2021

DRAWN BY: AK
CHECKED BY: VG

N|V|5

1255 CANTON ST, SUITE G
ROSWELL, GA 30075
(678) 795-3600
WWW.NV5.COM

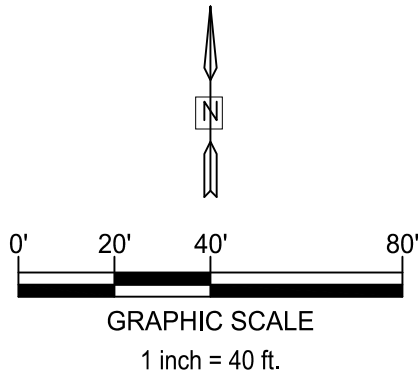
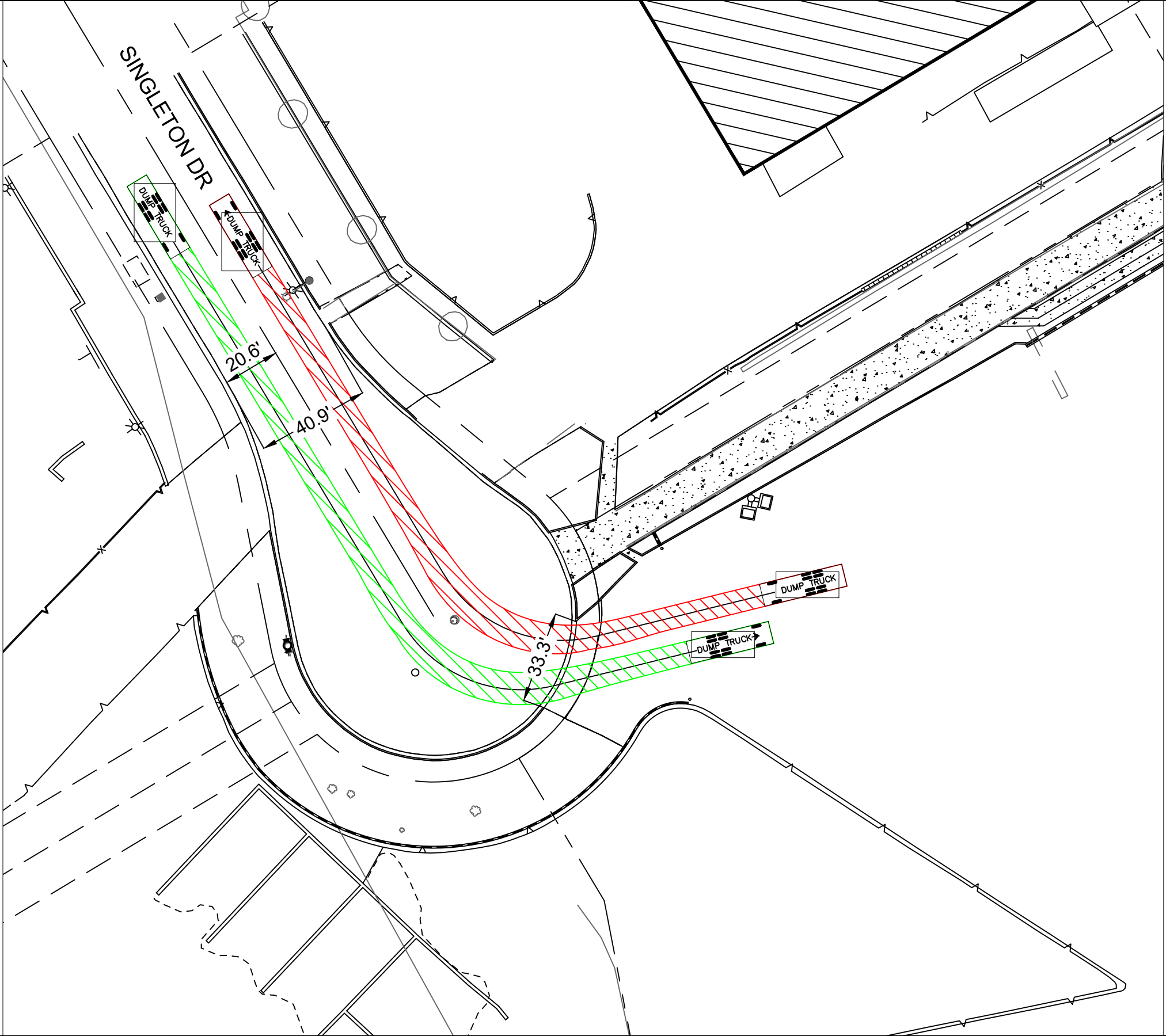
REVISION DATES

TRUCK TURNING EXHIBIT
FORTUNA WAY DRIVEWAYS

PROJECT NO. 2020086.00

LEGEND

- INGRESS
- EGRESS



DATE: 08/02/2021

DRAWN BY: AK
CHECKED BY: VG

N|V|5

1255 CANTON ST, SUITE G
ROSWELL, GA 30075
(678) 795-3600
WWW.NV5.COM

REVISION DATES

TRUCK TURNING EXHIBIT
SINGLETON DR
CONSTRUCTION ENTRANCE

PROJECT NO. 2020086.00

Appendix J – Cost Estimates



CITY OF RIALTO
Riverside Avenue/Slover Avenue
Preliminary Opinion on Probable Project Cost

PSOMAS

Preparer(s): Karen Nguyen
Reviewer: Arief Naftali

Date Updated: 11/18/16

DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	EXTENDED AMOUNT	ASSUMPTIONS
Miscellaneous					
Mobilization/Demobilization (Not to Exceed 5% of Subtotal)	1	LS	\$ 20,000.00	\$ 20,000	
Construction Survey	1	LS	\$ 10,000.00	\$ 10,000	
Construction Management & Inspection	1	LS	\$ 40,000.00	\$ 40,000	Performed by Psomas
Construction Administration	1	LS	\$ 20,000.00	\$ 20,000	Performed by Psomas
Stormwater Control/BMPs/SWPPP	1	LS	\$ 5,000.00	\$ 5,000	
Clearing and Grubbing	1	LS	\$ 3,500.00	\$ 3,500	Per Greenbook
Traffic Control (Including Construction Signs and CMS)	1	LS	\$ 15,000.00	\$ 15,000	
Miscellaneous Subtotal				\$ 113,500	
Intersection					
Construct Type 8 Integral Curb and Gutter	190	LF	\$ 19.00	\$ 3,610	
Construct 4" PCC Sidewalk	1,900	SF	\$ 5.95	\$ 11,305	10' Sidewalk
Construct Curb Ramps	4	EA	\$ 2,390.00	\$ 9,560	
Traffic Signal Relocation Per Pole, 1A (10') Pole	4	EA	\$ 6,550.00	\$ 26,200	
Traffic Signal Relocation Per Pole, Pole With Mastarm	4	EA	\$ 13,100.00	\$ 52,400	
Relocate PB or Adj. Grade	8	EA	\$ 120.00	\$ 960	
Traffic Signal Loops	32	EA	\$ 450.00	\$ 14,400	
Intersection Construction Subtotal =				\$ 118,435	
Utility Improvements					
Construct Catch Basin - 7'	1	EA	\$ 6,240.00	\$ 6,240	
Construct Catch Basin - 14'	1	EA	\$ 11,350.00	\$ 11,350	
Construct Junction Structure	0	EA	\$ 2,837.00	\$ -	
Construct Local Depression	0	EA	\$ 1,192.00	\$ -	
Adjust Sewer Manhole to Grade	2	EA	\$ 800.00	\$ 1,600	
Adjust Unknown Manhole to Grade	2	EA	\$ 800.00	\$ 1,600	
Adjust Water Valve to Grade	3	EA	\$ 500.00	\$ 1,500	
Relocate Power Pole	1	EA		\$ -	SCE will handle relocation cost
Relocate Street Light	0	EA	\$ 6,810.00	\$ -	
Relocate Fire Hydrant	1	EA	\$ 3,000.00	\$ 3,000	
Relocate Vent	0	EA	\$ 10,000.00	\$ -	
Relocate Vault	0	EA	\$ 5,000.00	\$ -	
Relocate Cabinet	0	EA	\$ 5,000.00	\$ -	
Utility Improvements Subtotal =				\$ 25,290	
Landscaping and Irrigation Improvements					
Median Landscaping	0	LS	\$ -	\$ -	
Median Irrigation	0	LS	\$ -	\$ -	
Water and Electrical POC's	0	LS	\$ -	\$ -	
Tree Removal	0	EA	\$ -	\$ -	
Landscaping and Irrigation Improvements Subtotal =				\$ -	
Signing and Striping Improvement					
Signing and Striping	1	LS	\$ 310.00	\$ 310	
Subtotal =				\$ 257,535	
Contingency (15%) =				\$ 38,600	
CONSTRUCTION TOTAL =				\$296,000	
DESIGN TOTAL (20% of Construction Costs) =				\$59,200	
GRAND TOTAL				\$355,200	



CITY OF RIALTO
Riverside between I-10 and Agua Mansa (2 mi)
Preliminary Opinion on Probable Project Cost

PSOMAS

Preparer(s): Lisette Bice
Reviewer: Arief Naftali

Date Updated: 08/09/16

DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	EXTENDED AMOUNT	ASSUMPTIONS
Miscellaneous					
Mobilization/Demobilization (Not to Exceed 5% of Subtotal)	1	LS	\$ 800,000.00	\$800,000	
Construction Survey	1	LS	\$ 150,000.00	\$150,000	
Construction Management & Inspection	1	LS	\$ 3,000,000.00	\$3,000,000	Performed by Psomas
Stormwater Control/BMPs/SWPPP	1	LS	\$ 7,000.00	\$7,000	
Clearing and Grubbing	1	LS	\$ 500,000.00	\$500,000	Per Greenbook
Traffic Control (Including Construction Signs and CMS)	1	LS	\$ 90,000.00	\$90,000	
Right-of-Way Acquisition	140,643	SF	\$ 15.00	\$2,109,645	
Miscellaneous Subtotal =				\$6,700,845	
Road Construction					
Construct Type 8 Integral Curb and Gutter	22,000	LF	\$ 19.00	\$ 418,000	
Construct 4" PCC Sidewalk	253,440	SF	\$ 5.95	\$ 1,507,968	
Construct 8" Median Curb	21,500	LF	\$ 15.00	\$ 322,500	
Construct PCC Paving in Medians	16,000	SF	\$ 5.95	\$ 95,200	Assume 18" band
Construct Curb Ramps	21	EA	\$ 2,390.00	\$ 50,190	
Subgrade Preparation	225,500	SF	\$ 0.36	\$ 81,180	Top 6" of Soil
1-1/2" Cold Mill (\$35,000 + \$0.80/SF)	789,000	SF	\$ 0.80	\$ 631,200	
Construct 1-1/2" Overlay Asphalt Pavement	789,000	SF	\$ 0.90	\$ 710,100	
Construct 5" Asphalt Pavement/Aggregate Base (5"/6")	225,500	SF	\$ 4.00	\$ 902,000	Full Depth
Construct Commercial Driveway	17,000	SF	\$ 10.75	\$ 182,750	
Construct Residential Driveway	0	SF	\$ 10.75	\$ -	
Construct Cross Gutter	1	EA	\$ 5,000.00	\$ 5,000	
Construct Parkway Culvert	3	EA	\$ 1,500.00	\$ 4,500	
Construct Retaining Wall	575	LF	\$ 100.00	\$ 57,500	
Wide Overpass	15,000	SF	\$ 1,000.00	\$ 15,000,000	
Road Construction Subtotal =				\$ 19,968,088	
Utility Improvements					
Adjust Sewer Manhole to Grade	0	EA	\$ 800.00	\$0	
Adjust Unknown Manhole to Grade	0	EA	\$ 800.00	\$0	
Adjust Vault to Grade	0	EA	\$ 3,000.00	\$0	
Adjust Water Valve to Grade	3	EA	\$ 500.00	\$1,500	
Relocate Manhole	0	EA	\$ 5,000.00	\$0	
Relocate Power Pole	52	EA	\$ -	\$0	SCE will cover the cost of the relocation
Relocate Guy Wire	19	EA	\$ 15,000.00	\$285,000	
Relocate Water Meter	19	EA	\$ 500.00	\$9,500	
Relocate Street Light	21	EA	\$ 6,810.00	\$143,010	
Relocate Fire Hydrant	32	EA	\$ 3,000.00	\$96,000	
Relocate Vent	0	EA	\$ 10,000.00	\$0	
Relocate Vault	0	EA	\$ 5,000.00	\$0	
Relocate Cabinet	0	EA	\$ 5,000.00	\$0	
Relocate Mailbox	3	EA	\$ 300.00	\$900	
Relocate Pull Box	21	EA	\$ 700.00	\$14,700	
Construct Catch Basin - 7'	0	EA	\$ 6,240.00	\$0	
Construct Catch Basin - 14'	11	EA	\$ 11,350.00	\$124,850	
Construct Local Depression	11	EA	\$ 1,192.00	\$13,112	
Construct Concrete Collar	11	EA	\$ 2,980.00	\$32,780	
Construct 18" RCP	165	LF	\$ 113.50	\$18,728	
Utility Subtotal =				\$740,080	
Rail Improvements					
Relocate Rail Signals	0	EA	\$ 250,000.00	\$ -	
Relocate Rail Bungalow	0	EA	\$ 50,000.00	\$ -	
Rail Subtotal =				\$0	
Landscaping and Irrigation Improvements					
Median Landscaping	10,560	LF	\$ 100.00	\$ 1,056,000	No Street Trees or Parkway Landscaping
Median Irrigation	10,560	LF	\$ 75.00	\$ 792,000	Mainline, conduit, POV
Landscaping Subtotal =				\$1,848,000	
Signing and Striping Improvement					
Signing and Striping	1	LS	\$ 40,000.00	\$ 40,000	
Signing and Striping Subtotal =				\$40,000	
Subtotal =				\$29,297,013	
Contingency (15%) =				\$4,394,600	
CONSTRUCTION TOTAL =				\$33,691,600	
DESIGN TOTAL (20% of Construction Costs) =				\$6,738,320	
GRAND TOTAL =				\$40,429,920	

MEMORANDUM

Date: September 6, 2021

Ref: Vehicle Miles Traveled (VMT) Study
 Angelus Block Co. Manufacturing Plant (MC2020-0012)
 Fortuna Avenue
 Rialto, CA 92010

This memo summarizes the findings and recommendations of the Vehicle Miles Traveled (VMT) analysis for the proposed Angelus Block manufacturing facility in the City of Rialto, CA. The VMT analysis results are presented below.

Background

With the adoption of Senate Bill (SB) 743, the State of California changed the method of traffic analysis required through the California Environmental Quality Act (CEQA) for publicly and privately initiated projects. The law changed the way local jurisdictions, like the County of San Bernadino, analyze transportation impacts from development projects and identify mitigation measures to reduce those impacts. SB 743 became effective on July 1, 2020. The County of San Bernadino uses VMT as the new analysis metric.

Project Description

The project is a proposed manufacturing plant consisting of 188,493 square feet. Access to the site is provided via a cul-de-sac at the end of Fortuna Way. There are two one-way driveways spaced out within this cul-de-sac: one for entering and one for exiting. A secondary entrance is located at the end of Singleton Drive at the southern portion of the proposed site. This entrance is dedicated to construction vehicles and will not be used for daily operations once construction of the site is complete.

General Plan Consistency

The site is located within the Agua Mansa Specific Plan and is consistent with the City's General Plan. The industrial corridor is 4,285 acres, located south of I-10 and west of I-215 on the western bank of the Santa Ana River. The corridor is approved for a variety of land uses, including industrial, agricultural, and residential.

According to the City of Rialto's General Plan (2010), Policy 2-9.3: Focus the establishment of new industries using, manufacturing, transporting, or storing hazardous or toxic materials or wastes within the Agua Mansa Industrial Corridor Area. For the corridor the General Plan the objectives for the Agua Mansa Project Area include maintaining and enhancing opportunities for industrial activity, employment creation, and infrastructure improvements.

County VMT Guidelines

The City of Rialto's VMT Analysis Guidelines are currently in development, therefore, the County of San Bernadino's Transportation Impact Study Guidelines (2019) were used. The guidelines require a VMT analysis be conducted if a project generates over 110 trips per day. Trips generated by the project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. The resulting trip generation for the proposed project is presented in the traffic impact study (TIS) dated September 2021. According to the 2021 TIS, the project is anticipated to generate 1,270 passenger car

equivalent daily trips per day. Based on the County's 110 daily trip threshold, the project is required to evaluate VMT per employee to determine the project's impact to VMT.

VMT Screening Evaluation

The County guidelines permit the use of the San Bernardino Transportation Analysis Model (SBTAM) most recent interactive VMT map¹ to estimate VMT for the traffic analysis zone (TAZ) in which the proposed project is located. Industrial projects are evaluated based on VMT/employee and are considered to have significant impacts when the VMT/employee for the project exceeds the regional average VMT/employee. Table 1 includes the regional mean VMT per employee and the VMT per Employee for the project's TAZ in which the proposed manufacturing facility would be located. Images of the interactive map results are attached for reference.

Table 1. VMT Comparison

VMT/Employee	
County of San Bernadino VMT	27.2
Project TAZ VMT	107.8

Based on the screening map, employee based VMT for the project is higher than the regional average. To determine the project's significance, a model run was required and performed using the most recent version of the SBTAM.

VMT Model Results

The San Bernardino Transportation Analysis Model (SBTAM) baseline model year output files were used to calculate the VMT metrics for the Project TAZ and the San Bernardino County region. The VMT calculation methodology outlined below has been developed based on VMT calculation methodologies utilized by other jurisdictions in Riverside County and the surrounding region.

As part of the impact analysis under CEQA, both project impacts and cumulative impacts must be evaluated to determine the project's impact on the environment. Therefore, VMT analyses were conducted for the project buildout year (2022) and for the SBTAM horizon model year (2040) to determine buildout year and cumulative impacts. The VMT were analyzed for the following traffic conditions:

- Baseline (2022) Without Project;
- Baseline (2022) With Project;
- Cumulative (2040) Without Project; and
- Cumulative (2040) With Project conditions.

VMT results for each condition are identified in Table 2.

Table 2. VMT Model Results

VMT/Employee	Baseline 2022 Conditions		Change	Cumulative 2040 Conditions		Change
	Without Project	With Project		Without Project	With Project	
County of San Bernadino	18.98	21.18	2.20	24.69	20.71	-3.98
Project TAZ	23.04	24.17	1.13	26.91	22.04	-4.87

¹ <https://sbcta.maps.arcgis.com/apps/webappviewer/index.html?id=779a71bc659041ad995cd48d9ef4052b> last consulted 06/13/2021.

Using the County of San Bernadino for comparison, the project is anticipated to have a significant impact on VMT under Baseline 2022 Conditions as identified in Table 2. In the Cumulative 2040 Condition, the project will not have a significant impact on VMT and will reduce the Cumulative VMT by 3.98. Specific model information and input criteria is provided in the Attachments.

VMT Reduction Strategies

According to the County of San Bernadino's Traffic Study Guidelines (2019), a project that has a higher VMT per person/employee than the regional average should be mitigated to 4% below the baseline VMT. The project therefore is required to reduce the project VMT to 4% below the Baseline 2022 Condition for a resulting VMT of 18.22. No mitigation is required for the 2040 Cumulative Condition.

Based on the County guidelines, projects that are over the VMT threshold should consist of Transportation Demand Management (TDM) measures analyzed under a VMT-reduction methodology consistent with Chapter 7 of the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures (August 2010). The following TDM measures will be implemented with the project and are feasible based on the project site land use and operation.

- **Commute Trip Reduction**
 - Applying TRT-1 from CAPCOA: Implement Commute Trip Reduction Marketing
This includes existing and new employee orientation of trip reduction and alternative mode options and disbursement of alternative mode choice marketing materials and resources (100% of employees eligible). Additionally, the project will provide a Transportation Coordinator to distribute TDM information to existing employees and new hires, and provide priority parking for vanpool/carpool participants.
- **Ride Share Program**
Participation in the County of San Bernadino's Carpool and Vanpool Ride-Matching Services and encouragement for employees to participate in the program.
- **Preferential Parking Permit Program**
The project will provide preferential parking spaces to carpool and vanpool participants, this measure compliments TRT-1 and TRT-3 therefore no reduction was applied to avoid double counting.

Additional VMT reduction strategies the project is committed to include a 25% **Local Hiring Commitment**. The Local Hiring Commitment guarantees at least 25% of employees will be located within the City of Rialto and adjacent cities, creating more internalized trips, and supporting the goals of SB 743. Based on sociodemographic data within the City's boundaries, the average distance of travel to the site is 11.93 miles. The local hiring commitment would include any jurisdiction within that limit. Based on the average VMT per employee, creating employment opportunities in the City is an effective VMT reducing measure bringing the average VMT to 18.87 miles with a 25% local hiring commitment. The VMT per employee therefore would be below the Baseline 2022 without Project condition. Employment data is provided in the Attachments.

Using the methodology provided by CAPCOA and the local hiring commitment, the VMT reduction for the project is identified in Table 3.

	Reduction Strategy	Range of Effectiveness	VMT Reduction	Combined VMT Reduction	Results
Commute Trip Reduction (CAPCOA)					
TRT-1	Implement Commute Trip Reduction Marketing	0.8 - 6.2%	4.16%	8.8%	-1.86
TRT-3	Provide Ride Sharing Program	1-15%	5.0%	8.8%	
TRT-8	Preferential Parking Permit Program	N/A	N/A	8.8%	
Baseline 2022 Conditions w/ Project					21.18
Baseline 2022 Conditions w/ Project (CAPCOA Reduction)					19.32
Local Hiring Reduction (25%)					2.32
Baseline 2022 Conditions w/ Project (Local Hiring and CAPCOA Strategies)					17.0

Notes:

1. VMT Reduction results based on methodology from Quantifying Greenhouse Gas Mitigation Measures (CAPCOA, 2010).
2. TRT-series measures apply to commute VMT, which is estimated at 100 percent of the overall Project Employee VMT.
3. TRT-1 includes TDM coordinator, carpool encouragement, vanpool assistance, and ride matching assistance. Alternative literature was referenced for applicability purposes. TRT-8 strategy is a complement to TRT-1.
4. TRT-3 Ride share program 100% of employees are eligible for the rideshare program participation.
5. The project's total VMT Reduction based on CAPCOA is 8.8% (1.86).
Each VMT reduction measure's percent reduction is combined multiplicatively to get the project's total VMT Reduction. As discussed in Chapter 6 of the CAPCOA report, the equation is as follows: Combined CAPCOA Total Reduction = $1 - [(1-A) \times (1-B) \times (1-C) \times \dots]$; A,B,C, = each measure's percent reduction
6. Local hiring commitment assumes at least 25% of employees will be local hires. With 25% local hires the new VMT average is 18.87. See attachments for eligible employees and distance traveled to the project site.

Results

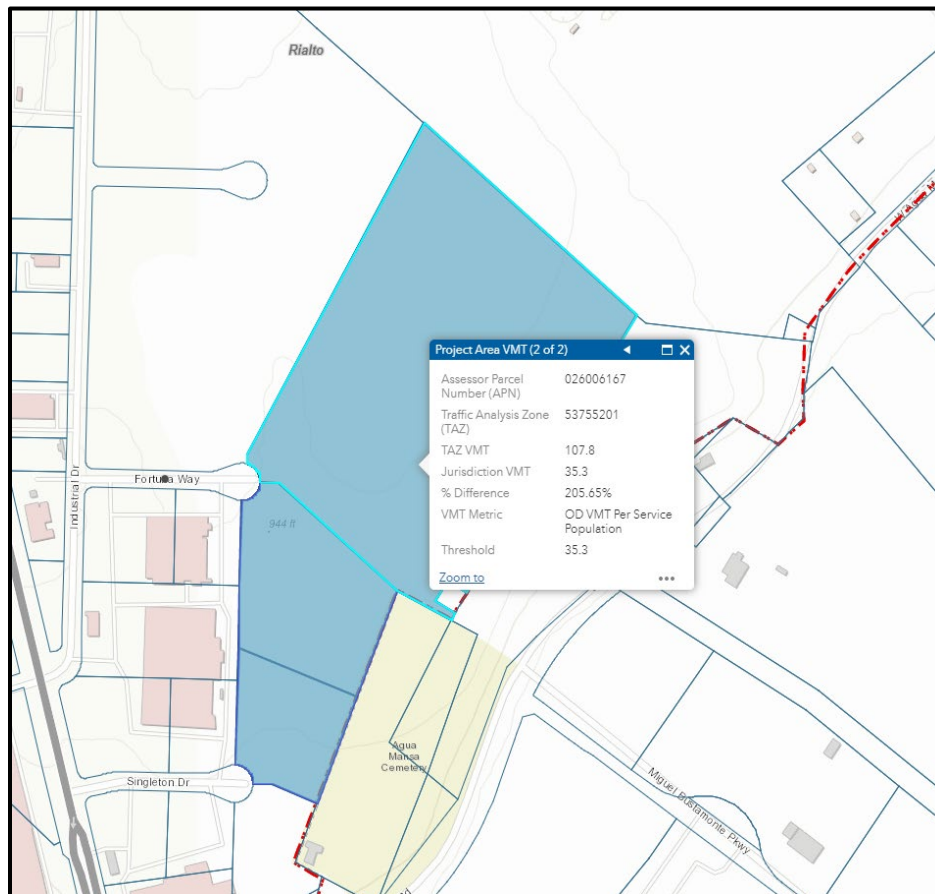
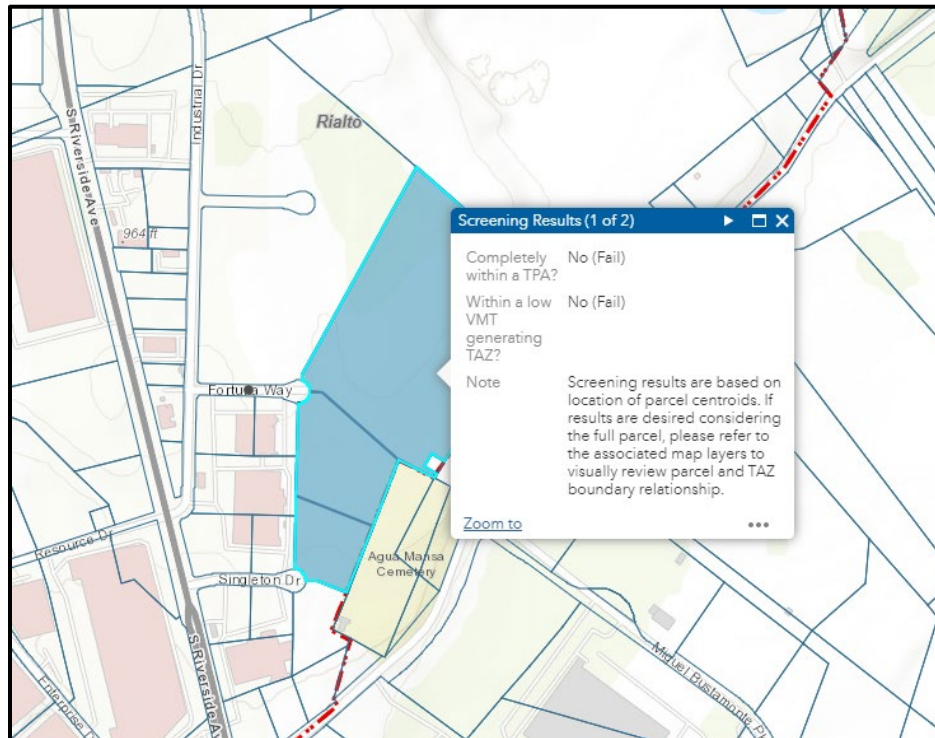
With CAPCOA strategies and the Local Hiring Commitment, the project is anticipated to reduce VMT at least 4% below the baseline VMT. With the implementation of the strategies identified in this memorandum, the project will result in a total VMT per employee of 17.0 in the Baseline 2022 Condition. The project does not result in a significant impact and reduces VMT in the Cumulative 2040 Condition. No additional VMT reduction strategies are required.

Attachments

VMT Screening Map Results
Model Run Methodology
Model Run Results
City Employee VMT Results

Attachments

VMT Screening Map Results



Model Run Methodology

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VMT CALCULATION METHODOLOGY

The San Bernardino Transportation Analysis Model (SBTAM) baseline model year output files were used to calculate the VMT metrics for the Project TAZ, the City of Rialto, and the San Bernardino County region. The VMT calculation methodology outlined below has been developed based on VMT calculation methodologies utilized by other jurisdictions in Riverside County and the surrounding region.

As part of the impact analysis under CEQA, both Project impacts and cumulative impacts must be evaluated to determine the Project's impact on the environment. Therefore, VMT analyses were conducted for the Project buildout year (2022) to evaluate Project impacts and for the SBTAM horizon model year (2040) to determine cumulative impacts. The VMT were analyzed for the following traffic conditions:

- Baseline (2022) Without Project conditions;
- Baseline (2022) With Project conditions;
- Cumulative (2040) Without Project conditions; and
- Cumulative (2040) With Project conditions.

As the Project buildout year does not coincide with the SBTAM base year (2016) or future year (2040), VMT results were interpolated between these two conditions to estimate VMT results during the Project's buildout year (2022).

The model output files for the SBTAM without adjustments to the model assumptions were used to determine the VMT metrics for the Without Project scenario. VMT results for the With Project conditions were determined by running the SBTAM with adjusted socioeconomic data (SED) inputs to account for the land use changes resulting from Project development. These changes in SED reflected Project-related employment increases for the Project TAZ under With Project conditions. The adjustments to the SED assumptions are detailed in the following section.

Once the adjustments were made to the SED, the SBTAM was run for the base year (2016) and future year (2040), each for the With Project conditions. The output files from these model runs were assessed to determine the VMT metrics for the Project TAZ, the City of Rialto overall, and the entire San Bernardino County region. The home-based work VMT was calculated using the production-attraction (PA) methodology, which allows for the calculation of VMT for specific trip types. This methodology consists of converting the peak (PK) and off-peak (OP) PA matrices from person trips to vehicles trips using average vehicle occupancy rates. This process replicated the model process of converting PA matrices to origin-destination (OD) matrices, however it was conducted only for the home-based work trip type while keeping departure and return trips distinct. The PK and OP skim matrices were then multiplied by the custom-calculated home-based work vehicle trip matrices to estimate VMT. The VMT matrices were then summed to combine PK and OP VMT estimates for departure and return trips. The total daily home-based work VMT was then extracted using the marginal totals from the daily departure and return VMT matrices (column of departure matrix and row of return matrix) for the individual Project TAZ, the City of Rialto TAZs, and the San Bernardino County TAZs. These totals were then divided by the total employment of the Project TAZ, the Rialto TAZs, and the San Bernardino County TAZs, respectively, to determine the home-based work VMT per employee for the corresponding geographical region.



SBTAM SOCIOECONOMIC DATA ASSUMPTIONS

VMT results for the With Project conditions were determined by running the SBTAM with appropriate SED inputs to account for the land use changes resulting from Project development. In order to ensure that the SBTAM accounts for proposed levels of development on the Project site, the SED input data for the model base (2016) and future (2040) years were reviewed. Adjustments were made to the SED assumptions for both model years under to account for employment growth under With Project conditions.

SBTAM BASE YEAR (2012) SOCIOECONOMIC DATA ADJUSTMENTS

For the With Project scenario, Project-related employment increases were added to the SED assumptions from the base year (2012) Without Project conditions. Since the Project consists of the development of a paving stone/brick manufacturing facility, the additional employees were categorized within the manufacturing employment type.

SBTAM FUTURE YEAR (2040) SOCIOECONOMIC DATA ADJUSTMENTS

The SED assumptions for the SBTAM future year (2040) were also adjusted to account for employment growth assumptions for the Project TAZ. For the future year (2040) Plus Project conditions, the Project-added employment estimates were then added to the SED assumptions for the future year (2040) Without Project conditions. All additional employment added to the Project TAZ was categorized by manufacturing employment type. Additionally, employment estimates added to the Project TAZ were also proportionately removed from surrounding non-Project TAZs to maintain a constant level of regional growth for the SBTAM future year. Maintaining a constant level of employment growth in the region ensures consistency with the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Therefore, SED assumptions for TAZs within an approximately 5-mile radius of the Project site was reviewed to identify the TAZs with the most manufacturing jobs.

Model Run Results

Angeles Block Company
VMT Analysis
Project TAZ Socioeconomic Data Adjustments

Project TAZ (ID: 53755201)	Total Employees	Wage Level			Employment Industry
		Low Income	Medium Income	High Income	
Baseline (2016) SED Data Assumptions	512	244.3	123.5	144.1	126.6
Adjusted Baseline (2016) SED Data Assumptions	587	254.3	173.5	159.1	201.6
Cumulative (2040) SED Data Assumptions	1028	622.8	217.7	187.5	89.4
Adjusted Cumulative (2040) SED Data Assumptions	1103	632.8	267.7	202.5	164.4

Angelus Block Company
VMT Analysis
Future Model Year Socioeconomic Data Adjustments

TAZ ID	Cumulative (2040) SED Data Assumptions					Adjusted Cumulative (2040) SED Data Assumptions - With Project Condition				
	Total	Wage Level			Employment Industry	Total	Wage Level			Employment Industry
	Employees	Low Income	Medium Income	High Income	Manufacturing	Employees	Low Income	Medium Income	High Income	Manufacturing
53775301	1127	560.2	466.8	100.0	728.0	1116	558.2	460.8	97.0	717.0
43240200	2751	1592.0	711.0	448.0	392.0	2745	1591.0	707.0	447.0	386.0
43144300	3333	1506.0	883.0	944.0	355.0	3327	1505.0	879.0	943.0	349.0
43246100	1633	939.0	377.0	317.0	161.0	1630	939.0	376.0	315.0	158.0
53753201	1939	1135.9	497.6	305.5	158.2	1936	1135.9	496.6	303.5	155.2
53774102	1134	746.3	268.2	119.5	154.3	1131	746.3	267.2	117.5	151.3
43249200	1314	773.0	296.0	245.0	118.0	1312	773.0	295.0	244.0	116.0
53775302	173	86.0	71.7	15.4	110.6	171	86.0	70.7	14.4	108.6
43144400	915	601.0	180.0	134.0	101.0	913	601.0	179.0	133.0	99.0
53760101	3350	2277.0	654.7	418.3	100.3	3348	2277.0	653.7	417.3	98.3
43249300	998	571.0	231.0	196.0	100.0	996	570.0	230.0	196.0	98.0
43251100	779	467.0	159.0	153.0	97.0	777	466.0	158.0	153.0	95.0
53749301	1263	753.3	315.2	194.5	96.5	1261	752.3	314.2	194.5	94.5
53789301	358	209.7	90.2	58.1	95.0	356	208.7	89.2	58.1	93.0
43240100	518	281.0	146.0	91.0	93.0	516	280.0	145.0	91.0	91.0
53789302	298	174.5	75.1	48.4	90.4	296	173.5	74.1	48.4	88.4
43258100	567	366.0	128.0	73.0	74.0	566	366.0	127.0	73.0	73.0
43238100	2525	1749.0	461.0	315.0	73.0	2524	1749.0	460.0	315.0	72.0
53753401	667	364.1	150.4	152.5	70.7	666	364.1	149.4	152.5	69.7
53757401	3394	2344.9	672.6	376.4	70.4	3393	2344.9	671.6	376.4	69.4
53773201	648	396.8	163.6	87.6	65.7	647	396.8	162.6	87.6	64.7
53760301	575	355.3	119.5	100.1	49.4	574	355.3	118.5	100.1	48.4
53749302	603	359.6	150.5	92.9	45.2	602	359.6	149.5	92.9	44.2
53774501	585	348.2	149.9	86.8	44.9	584	348.2	148.9	86.8	43.9
53757302	1652	1151.1	285.0	216.0	44.3	1651	1151.1	284.0	216.0	43.3
53748101	819	559.2	211.8	48.0	40.4	818	559.2	210.8	48.0	39.4
43249100	1351	935.0	247.0	169.0	39.0	1350	935.0	246.0	169.0	38.0
53759302	97	88.5	7.5	0.9	36.0	96	88.5	6.5	0.9	35.0
43144200	1226	849.0	224.0	153.0	35.0	1225	849.0	223.0	153.0	34.0
53770202	1811	1230.9	352.6	227.5	31.6	1810	1230.9	351.6	227.5	30.6
53748801	784	517.5	129.6	136.8	29.1	783	517.5	128.6	136.8	28.1
53744201	766	491.5	163.4	111.1	29.1	765	491.5	162.4	111.1	28.1
53757501	1377	936.8	268.4	171.8	28.7	1376	936.8	267.4	171.8	27.7
43244200	970	671.0	178.0	121.0	28.0	969	671.0	177.0	121.0	27.0
53754301	858	583.6	167.0	107.4	26.3	857	583.6	166.0	107.4	25.3
53773101	267	165.7	65.8	35.5	25.3	266	165.7	64.8	35.5	24.3
53752101	1496	909.5	361.4	225.0	25.2	1495	909.5	360.4	225.0	24.2
53774301	326	220.1	68.4	37.5	25.1	325	220.1	67.4	37.5	24.1
53748701	482	357.9	77.0	47.1	25.0	481	357.9	76.0	47.1	24.0
53755201	1028	622.8	217.7	187.5	89.4	1103	632.8	267.7	202.5	164.4
Total	46757	29247	10443	7067	4001	46757	29247	10443	7067	4001

City Employee VMT Results

Residence Location	Workplace Location	Number of Workers Eligible	Vehicle Miles Traveled (Total)
C3100US06071004004	C3100US06071004004	215	2.67
C1100US06071004401	C3100US06071004004	25	10.34
C1100US06071003605	C3100US06071004004	4	10.10
C1100US06071003609	C3100US06071004004	10	7.72
C1100US06071003611	C3100US06071004004	15	8.79
C1100US06071003503	C3100US06071004004	10	16.16
C1100US06071003507	C3100US06071004004	25	13.92
C1100US06071003603	C3100US06071004004	4	11.12
C1100US06071003405	C3100US06071004004	15	14.36
C1100US06071003606	C3100US06071004004	4	9.42
C1100US06071004003	C3100US06071004004	15	5.66
C1100US06071003607	C3100US06071004004	20	8.73
C1100US06071003505	C3100US06071004004	4	13.44
C1100US06071003804	C3100US06071004004	30	14.81
C1100US06071003803	C3100US06071004004	15	12.63
C1100US06071003801	C3100US06071004004	30	14.87
C1100US06071003403	C3100US06071004004	40	12.07
C1100US06071003700	C3100US06071004004	10	10.13
C1100US06071003900	C3100US06071004004	20	11.32
C1100US06071002705	C3100US06071004004	20	18.58
C1100US06071002704	C3100US06071004004	90	23.83
		Average VMT	11.94

